



Technical Annexes to the Final Report of the Study on the state and effectiveness of national funding systems of higher education to support the European Universities Initiative (Volume II)

Ben Jongbloed
Cécile McGrath
Harry de Boer
Ariane de Gayardon

March 2023

cheps
Center for
Higher Education
Policy Studies



EUROPEAN COMMISSION

Directorate-General for Education, Youth, Sport and Culture

Directorate Youth, Education and Erasmus+

Higher Education Unit

Contact: Unit B1 - Higher Education

E-mail: EAC-UNITE-B1@ec.europa.eu

European Commission

B-1049 Brussels

**Technical Annexes to the Final
Report of the Study on the state
and effectiveness of national
funding systems of higher
education to support the European
Universities Initiative**
(Volume II)

Directorate-General for Education, Youth, Sport and Culture
Youth, Education and Erasmus+

AUTHORS' NOTE

The data collection for this study was completed in December 2021 and the manuscript was finalised in December 2022. Some countries may in this period have changed their higher education funding system and/or the methods and amounts of their national contributions to the European Universities Initiative.

LEGAL NOTICE

This document has been prepared for the European Commission however it reflects the views only of the authors, and the European Commission is not liable for any consequence stemming from the reuse of this publication. More information on the European Union is available on the Internet (<http://www.europa.eu>).

PDF

ISBN 978-92-76-53598-0

doi: 10.2766/598606

NC-08-22-189-EN-N

Luxembourg: Publications Office of the European Union, 2023

© European Union, 2023



The reuse policy of European Commission documents is implemented by the Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39). Except otherwise noted, the reuse of this document is authorised under a Creative Commons Attribution 4.0 International (CC-BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.

Conducted by the Center for Higher Education Policy Studies (CHEPS) and ICF

Project team

Project Director: Ben Jongbloed

Project Manager: Cécile McGrath

Senior researchers: Harry de Boer, Ariane de Gayardon, Kristina Basna

Advisory board: Peter Van der Hijden, Jaana Puukka, Frank Ziegele

Country research coordinator: Claire Walkey

Country researchers and case study authors:

Austria: Stefan Humpl, Katharina Hack, Kerstin Scherz

Belgium Flanders: Eline Wildoer

Belgium Wallonia: Cécile McGrath

Bulgaria: Maria Karayatova

Croatia: Marija Pavkov

Czech Republic: Klara Kovarova

Cyprus: George Maridis

Denmark: Astrid Henningsen

Estonia: Eve Mägi

Finland: Jaana Puukka

France: Ariane de Gayardon

Germany-Berlin: Ben Jongbloed

Germany-Lower Saxony: Andrea Kottmann

Greece: George Maridis

Hungary: Gabor Endrodi

Ireland: David Scott

Italy: Martina Morosi & Gianfranco Pischedda

Latvia: Anete Veidemane

Lithuania: Rimantas Zelvyis

Luxembourg: Cécile McGrath

Malta: David Scott

Netherlands: Harry de Boer & Ben Jongbloed

Poland: Aleksandra Duda

Portugal: Pedro Teixeira

Spain: Javier Valle

Romania: Daniela Craciun

Slovakia: Klara Kovarova

Slovenia: Damijan Štefanc

Sweden: Jan Hylén

ECIU case study: Harry de Boer

EU-Conexus case study: Kristyna Basna

Research assistant: Nazia Chowdhury

Table of Contents

Annex 1	Country Factsheets	1
A1.1	Austria - public universities.....	2
A1.2	Austria – Universities of Applied Science	12
A1.3	Belgium (Flanders).....	17
A1.4	Belgium (Wallonia)	23
A1.5	Bulgaria.....	27
A1.6	Croatia	35
A1.7	Cyprus	47
A1.8	Czech Republic	50
A1.9	Denmark	55
A1.10	Estonia.....	61
A1.11	Finland.....	71
A1.12	France.....	82
A1.13	Germany – Berlin.....	88
A1.14	Germany – Lower Saxony.....	94
A1.15	Greece	102
A1.16	Hungary	107
A1.17	Ireland.....	114
A1.18	Italy	127
A1.19	Latvia	134
A1.20	Lithuania	142
A1.21	Luxembourg.....	148
A1.22	Malta.....	154
A1.23	Netherlands	156
A1.24	Poland.....	165
A1.25	Portugal	176
A1.26	Romania	183
A1.27	Slovakia	191
A1.28	Slovenia.....	196
A1.29	Spain.....	202
A1.30	Sweden.....	206
Annex 2	Case studies.....	211
A2.1	Austria.....	212
A2.2	Bulgaria.....	225
A2.3	Denmark	237
A2.4	Finland.....	257
A2.5	Germany - Berlin	272
A2.6	Italy	284
A2.7	Netherlands	294
A2.8	Poland.....	312
Annex 3	Introduction to the case studies of the European University Alliances... 333	
	Presentation of the case studies.....	334
A3.1	CASE STUDY #1: EU-CONEXUS	335
A3.2	CASE STUDY #2: ECIU University.....	344
Annex 4	Participants in the validation webinar.....	352

Main abbreviations

DG EAC: Directorate General for Education, Youth, Sport and Culture

EC: European Commission

ECIU: European Consortium of Innovative Universities

ERC: European Research Council

ETER: European Tertiary Education Register

EU: European Union

EUI: European Universities Initiative

EU-CONEXUS: European University for Smart Urban Coastal Sustainability

HE: Higher Education

HEI: Higher Education Institution

OECD: Organisation for Economic Cooperation and Development

PBF: Performance-Based Funding

SYMPA: System for the repartition of means toward activity and performance, *Système de répartition des Moyens à l'Activité et à la Performance*.

T&L: teaching and learning

Country abbreviations used according to the European Union interinstitutional style guide REV 23 / 1.2.2020.

Annex 1 Country Factsheets

A1.1 Austria - public universities

A1.1.1 Context

1.a. Country name - Austria	The Austrian higher education system consists of four sectors, which are uneven in size. There are:
1.b. Higher education sub-sector	22 public universities 21 universities of applied sciences (<i>Fachhochschulen</i> , UAS) 16 private universities 14 university colleges for teacher education. <i>Source: OECD (see here)</i> Information in this template refers to public universities.

1.b Composition of institutional funding (%) ¹					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2008	78%	6%	16%	100%	

Source: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report. Enschede: CHEPS. p.45 . (see here)

 2008 source: ETER (2019) How are European Higher Education Institutions funded? New evidence from ETER microdata European Tertiary Education Register

 Data from 2020:

 The 22 public universities are funded by the federal government (with the exception of the University for Continuing Education Krems which is financed by course fees, by

¹ Data on the composition of institutional funding in annex 1 is collected by country informants.

2016 (EACEA)	77-79%	1-2%	14-16%	100%	federal funds, and by the province of Lower Austria). Public universities account for the bulk of public funding in the tertiary sector. ETER 2019 data are based on 22 public universities only (data missing for university colleges of teacher education, UAS, and private universities). <i>For EACEA data, see here</i>
2019 (ETER)	77%	2%	18%		

1.c. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined/incremental)	
Share in 2010 (or closest year available)	√√	√√		
Current share (in 2020 or most recent year)	√√	√√√		

The federal ministry and public universities negotiate goals and funding based on “institutional strategic plans”. In these plans, universities have to formalise their strategic development outlining medium- and long-term strategic goals. These plans serve as benchmarks for the negotiation of “performance agreements”.

All public funds are dispersed through performance agreements.

Source: EACEA ([see here](#))

While funds are based on contracts, they are calculated based on a formula using indicators. The model, introduced in 2019, is known as **Universitätsfinanzierung NEU**.

Source: BMBWF ([see here](#))

A1.1.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and Indicators	Education	Research	Comments and references	<p>For universities, the most important educational component in the budget is the number of students in degree programmes actively taking exams. There are seven subject groups that each have their funding rate to reflect cost differences (e.g., between classroom-based subjects and laboratory-based & creative arts subjects). Another factor is the number of teaching staff.</p> <p>The basic allocation for research is determined as the multiplication of the number of scientific (or artistic) staff and a funding rate per subject group.</p> <p>In addition to this, there is a performance-driven allocation. This is much smaller (contains a sum of around 400 Mio. €, which is a percentage of 3,6 % of the whole budget) and takes into account four competition indicators (“Wettbewerbsindikatoren”), i.e. the number of graduates, very active (i.e. ECTS 40+) students, third party funding and doctoral schools.</p> <p><i>Source: BMBWF (see here) and (here)</i></p> <p>The funding mechanism for the UAS sector is quite different. It is not based on the number of study places but depends on a development programme and available budget.</p> <p><i>Source: BMBWF (see here)</i></p> <p>55% are performance-based for the pillars “education” and “research”; the third pillar is infrastructure and strategic development (45%). The 55% are divided into 31% education (where i.e., student numbers and study performance of students play an important role), 24% go into the pillar research, where the most important performance factor is the number of dedicated research staff.</p>
	<p>1. Number of students in degree programmes actively taking exams</p> <p>2. Graduates</p> <p>3. Competition indicator: Students that are particularly active</p>	<p>1. Research staff</p> <p>2. Revenues from R&D projects</p> <p>3. Doctoral schools</p>		
2.b. Indicators	Education	Research	Comments and references	N/A

	<ol style="list-style-type: none">1. Number of students in degree programmes actively taking exams2. Graduates3. Competition indicator: Students that are particularly active	<ol style="list-style-type: none">1. Revenues from R&D projects2. Doctoral schools		
--	---	---	--	--

A1.1.3 Funding agreements/contracts

3.a. Main criteria used in the funding contract/agreement ranked by importance sorted by mission	Education	Research	Comments and references
	<p>1. Number of students in degree programmes actively taking exams</p> <p>2. Graduates</p> <p>3. Competition indicator: Students that are particularly active</p>	<p>1. Research staff</p> <p>2. Revenues from R&D projects</p> <p>3. Doctoral schools</p>	

3.b Criteria classified as performance criteria	Education	Research	Comments and references
	<p>1. Number of students in degree programmes actively taking exams</p> <p>2. Graduates</p> <p>3. Competition indicator: Students that are particularly active</p>	<p>1. Research staff</p> <p>2. Revenues from R&D projects</p> <p>3. Doctoral schools</p>	

3.c. Funding criteria in the contracts linked to the goal of internationalisation	Education-related internationalisation criteria	N/A	Comments and references	<p>The Austrian University Development Plan sets out 8 ‘system goals’. One of the goals relates specifically to the theme of internationalisation and mobility in education and research. This is also related to System Objective 7, ‘Increasing internationalization and mobility’.</p> <p><i>Source: Gesamtösterreichischer Universitätsentwicklungsplan 2019–2024 and BMBWF (see here).</i></p> <p>There is an indicator for students actively taking part in exchange programmes which is currently in preparation. This will be used for the next budgeting phase 2022-2025. Up to now the increasing internationalisation and mobility is not used in the performance indicators.</p>
	Research-related internationalisation criteria	N/A		
	Internationalisation criteria that are equally related to education and research	N/A		
	Engagement (3 rd mission, entrepreneurship, etc.) -related internationalisation criteria	N/A		

3.d. Parties involved in the contracts negotiation and time frame		Comments and references	N/A
<p>Performance agreements, drawn up between the individual university and the federal ministry, cover a period of three years and include specific goals the HEI has to meet regarding personnel, research and teaching. Based on these goals, the federal ministry and the university “agree” on a budget. HEIs have to report to the federal ministry every year on the state of implementation.</p>			

3.e. Rationale of the funding authorities for using a funding contract/agreement		Comments and references	<p><i>Sources: OECD (see here and here) and BMBWF (see here).</i></p>
<p>The federal ministry and public universities negotiate goals and funding based on “institutional strategic plans”. In these plans, universities have to formalise their strategic development outlining medium- and long-term strategic goals. These plans serve as benchmarks for the negotiation of “performance agreements”.</p> <p>The Austrian University Development Plan (GUEP) regulates the relationship between public universities and the federal government/ministry. The GUEP, issued in 2015 and redrafted in 2017, sets the priorities for the development of public universities and defines a range of planning parameters for teaching (e.g. indicators for enrolment, actively enrolled students, degrees, student/teacher ratios) with the aim to promote transparency.</p>			

<p>The <i>Austrian University Development Plan 2016-2021</i> defines eight system-wide objectives including improved coordination, social inclusion and diversity across the sector; strengthening research capacity; improving the quality of teaching, and developing an attractive career path for young scientists.</p>		
---	--	--

3.f. Degree to which the HEI can decide on the choice of performance targets and associated indicators		Comments and references	N/A
	<p>The Overall Austrian University Development Plan (GUEP) sets out 8 'system goals'. They represent an important basis for the performance agreements (LV) that the universities conclude every three years with the BMBWF for the purpose of their financing. They are broken down into individual target values and specific indicators for each individual university that should be achieved by the end of the performance agreement period.</p>		

A1.1.4 General information on PBF

4.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references	<p>55 % of the core funding, which is intended for education and research (two main pillars of the three-pillar funding model) are directly driven by performance criteria. The other 45 % are intended for the third pillar of the funding model, which is infrastructure and planning and is not driven by performance criteria.</p>
Exact	55%		<p>In 2010 about 20 % had been performance relevant.</p> <p>From the active 55% of performance-based funding more than half (31%) are really output-driven, the rest is more input-driven (research pillar: based on the employment of relevant research staff).</p>

4.b. Evolution of performance orientation in core funding system since 2010				Comments and references
Increased	Remained the same	Decreased	Don't know	
√				

A1.1.5 Data collection and performance monitoring

5.a. Data collection mechanisms tied to the performance-based funding system		Comments and references
N/A		<p>HEIs report to the government using a “knowledge scoreboard” (<i>Wissensbilanz</i>), which includes both qualitative and quantitative indicators. Based on “knowledge scoreboards”, the federal ministry draws up a comprehensive report about the performance of all universities and presents the results to the Austrian Parliament every three years. If HEIs fail to meet the targets defined in the performance agreements, the federal ministry discusses “adequate corrections and consequences” in the following cycle of negotiations.</p> <p>Individual university annual reports (<i>Entwicklungsberichte</i>) reflect strategic development plans (i.e. their <i>Entwicklungspläne</i>). These plans set out strategic objectives and directions. They are prepared by the respective rectorate every second year of each performance agreement period. This period-oriented planning is specified and adjusted at regular intervals for the two next performance agreement periods. Hence, they always include a six-year preview.</p> <p><i>Source: BMBWF (see here and here) and OECD (see here).</i></p>

5.b. Quantitative and Qualitative performance indicators reported by HEIs to the government in the context of the performance-based funding system	Comments and references
HEIs must report to the federal ministry every year on the state of implementation. HEIs report to the government using a “knowledge scoreboard” (<i>Wissensbilanz</i>), which includes both qualitative and quantitative indicators.	<i>Source: OECD (see here)</i>

5.d. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system	Comments and references
Moderate administrative burden	The discussion process in the “Knowledge reports” has been used for financing recently. Discussions to create input for the knowledge reports of all universities are sometimes characterised as an “administrative burden” by the universities. But the basis for performance-based funding indicators was established over a decade ago. Hence, indicators used to collect data for the performance indicators are well-established. No new data reports had been introduced to support the performance-based funding system.

A1.2 Austria – Universities of Applied Science

A1.2.1 Context

1.a. Country name – Austria	Universities of Applied Sciences (UAS)
1.b. Higher education sub-sector	

1.b. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2010	75%	5%	20%	100%	
2020 (ICF/CHEPS survey)	80%	2%	18%	100%	

Description of different means of institutional funding:

Core funds (operational grants) – provided by public authorities. This is direct national funding (based on the Fachhochschul-Entwicklungs- und Finanzierungsplan), where funding is defined by the number of study places taken in the respective study programme (a ceiling of study places is defined also).

Tuition and other student fees - played a more important role in the early 2000s.

3rd party funds - financial support from the regions (which themselves are also public authorities), but as UAS are – besides other factors – a subject to regional development, the regions' funding is important for at least some of the UAS

Note: The funding procedures differ by region. Hence, the overall figure provided here is only an estimation, as there are no central statistics on funding in Universities of Applied Sciences.

1.c. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined/incremental)	
Share in 2010 (or closest year available)	√√√√			
Current share (in 2020 or most recent year)	√√√√	√		

The strategic development and financing plan for UAS in Austria defines the main emphasis based on the National strategic planning for structural development in the higher education sector. It takes also into account the budgeting framework for the development of UAS, as the sector as such is still subject to strategic growth. The main pillars of development in the last 10 years had been growth in so-called MINT-sectors (Mathematics, Informatics, Natural Science and Technology), but also the development of the health care sector and respective higher education.

Source: BMBWF ([see here](#))

A1.2.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission.	Comments and references
Education	
1. Study places provided for students	

UAS receive basic national funding based on the study places provided to students in study programmes. While the number of study places possibly funded has a ceiling (a maximum), funding is given to the institutions measured by the “real number of students” in a programme. This basic funding is formula based. Additional funding comes through specific contracts. Basic funding covers from 60-95% of UAS budgets.

Regional public funding may follow specific strategic agreements between the region and the UAS, e.g. according to regional development plans. Some study programmes are pre-financed by the region, where national funding is expected to take over in 1-2 years.

A1.2.3 Funding agreements/contracts

3.a. Main criteria used in the funding contract/agreement ranked by importance sorted by mission	Education	Research	Equally to Education and Research	Comments and references	<p>The main factor in the development of study programmes and respective study places for students are the national priorities for the development of higher education (in UAS mainly MINT and health care). If a concept for a study programme developed by a UAS institution is agreed for financing, the number of respective study places is also defined. Funding then takes place to a high degree through study place-based funding (showing the statistics of “active students” in a study year in the agreed framework (agreed maximum of students in a study programme, for which study place-based funding takes place).</p> <p>Regional public funding may follow specific strategic agreements between the region and the UAS, e.g. according to regional development plans. Some study programmes are pre-financed by the region, where national funding is expected to take over in 1-2 years.</p>
	1. Study places provided for students	1. Revenues from R&D projects (third party funding)	1. Establishing structures for research and education following the national priorities		

3.b. Funding criteria in the contracts linked to the goal of <u>internationalisation</u>		Comments and references
Education-related internationalisation criteria	Internationalisation criteria that are equally related to education and research	N/A
Increasing international mobility of students	Development of institutional mobility plans	

3.c. Parties involved in the contract negotiation and time frame
<p>For national funding: UAS and the National Authority (BMBWF – Ministry of Education, Science and Research). Also involved to secure quality standards is the Austrian Agency for Quality and Accreditation (www.aq.ac.at), a national body to evaluate the quality of (new) study programmes and the UAS institutions as such.</p> <p>For regional funding: UAS and the regional Authority (Bundesland)</p>

3.d. Rationale of the funding authorities for using a funding contract/agreement

If national agreements to growth in specific fields and quality standards are met, funding is contracted. If quality standards are not met, funding will not take place.

A1.2.4 General information on PBF

4.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria

Estimate	80%
----------	-----

Comments
and
references

Dependent on the regional funding which differs from UAS to UAS and from region to region. In some UAS this figure may be 100%.

4.b. Evolution of performance orientation in core funding system since 2010

Increased	Remained the same	Decreased	Don't know
	√		

Comments
and
references

The development of UAS since the 1990s was based on similar funding structures.

A1.2.5 Data collection and performance monitoring

5.a. Data collection mechanisms tied to the performance-based funding system

The Austrian Agency for Quality and Accreditation is collecting relevant data and provides the data for evaluation.

5.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system

Yearly active students in each study programme.

5.c. Qualitative performance information reported by HEIs to the government in the context of the performance-based funding system

Study programmes have to be accredited to get funding, the accreditation systems secures the quality in teaching and learning and the relevance of study programmes to the labour market developments.

5.d. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system

High administrative burden in developing new study programmes, little administrative burden in data provision.

A1.3 Belgium (Flanders)

A1.3.1 Context

1.a. Country name - Belgium	The higher education sector includes universities and universities of applied sciences or 'university colleges'. Most institutions are public and there are very few non-subsidised and non-recognised institutions.
1.b. Region – Flanders	
1.b. Higher education sub-sector	

1.b. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other fees	3 rd party funds	Total	
2008 (public universities)	45%	5%	50%	100%	
2008 (university colleges)	80%	5%	15%	100%	
2020 (public universities)	45%	5%	50%	100%	
2020 (university colleges)	~80%	5%	15%	100%	
2019 (ETER)	58%	4%	32%	94%	

For 2008, data from Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report. Enschede: CHEPS, p.46. URL: <https://ris.utwente.nl/ws/portalfiles/portal/5141288>

For 2020, data from interview with national representative, interview with Flemish Interuniversity Council (VLIR), and CHEPS (2018). Evaluation of internal allocation models of Flemish universities [Evaluatie interne allocatiemodellen Vlaamse universiteiten].

ETER data (for 2019) are based on 21 universities and UAS (university colleges). Data missing for arts colleges. The three categories do not add up to 100%. 6% of revenues to be categorized under 'other'.

1.c. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined / incremental)	
Share in 2010 (or closest year available)	√√√			
Current share (in 2020 or most recent year)	√√√			

2010:
 Data from Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report. Enschede: CHEPS, URL: <https://ris.utwente.nl/ws/portalfiles/portal/5141288>; p. 48. Percentages may have changed since this report has been published.
 Funding is allocated in two sub-budgets to universities and university colleges according to a fixed and a variable part. The fixed part includes a lump sum payment. The fixed part for education is a degressive system which results in proportionally more funding for smaller institutions. The variable part includes a variable part for education, as well as for research. Programmes which are eligible for the variable part for funding in education are: accredited initial Bachelor's programmes, accredited initial Master's programmes, bridging programmes, and preparatory programmes.

2020: Data from survey

A1.3.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission (performance indicators in bold)	Education		Comments and references
		Number of credits taken up by students Number of credits taken up for which a student enrolls under a degree contract in an initial bachelor's program until the first 60 credits have been obtained (input financing) From a student's 61st credit, number of credits acquired (if the student passes the credit) (output financing) Number of diplomas awarded for the professional bachelor's programs and the initial master's programs, whereby these diplomas generate a bonus of 30 credits	The formula-based funding system consists of four parts: 1. The fixed part 2. The variable part 3. Overall research funding part (universities) 4. Variable research funding part (universities) In general, indicators linked to education are of higher importance than indicators linked to research. Besides this, the following funding is available:

		Credit financing points, referring to credit contracts, funded based on acquired credits		funding allocated to participation based on socio-economic background, the rationalisation of programmes, and excellence and curriculum innovation funding allocated on the basis of research cooperation, joint research, excellence and attracting researchers additional resources for project-based scientific research, for institutions with sites in Brussels, and for academically oriented university college programmes initiatives on equal opportunities and diversity According to survey data, all the indicators mentioned above are performance indicators. The national representative indicated that perhaps the 'number of credits taken up by students' indicators were not performance indicators.
	Research	The number of doctorates The number of publications Share of bachelor's, master's degrees and doctorates Share of publications and citations according to criteria Parameter mobility and diversity		
	Equally to Education and Research			
	Engagement (3 rd Mission)			
	Other			

A1.3.3 General information on PBF

4.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references	This is an estimation based on the VVS (2019) source (op. cit., page 20). Data from 2014 is used in this document, but as indicated previously, the composition of the core funding system as such has not changed recently. Explanation: As noted previously, two indicators within the funding formula cannot be considered performance indicators (the first two noted, left column, under question 2.a.).
Exact	N/A		

Estimate	75%		<p>These two indicators form the fixed funding part [onderwijssokkel] and 1/4th of the variable funding part [variable onderwijsdeel] respectively. The latter is an estimation, not an exact figure – there are four indicators within the variable funding part, after all.</p> <p>We use VVS (2019) core funding data. We detract the fixed funding part and 1/4th of the variable funding part from the total amount of core funding. We then calculate the percentage remaining.</p>
----------	-----	--	---

4 b. Evolution of performance orientation in core funding system since 2010				Comments and references	
Increased	Remained the same	Decreased	Don't know		Informed by survey data.
	√				

A1.3.4 5 Data collection and performance monitoring

5.a. Data collection mechanisms tied to the performance-based funding system	Comments and references
<p>The Agency of Higher Education, Qualifications and adult education (AHOVOKS), an agency within the Ministry of Education, collects data. The HEIs submit data to a database [<i>databank hoger onderwijs</i>].</p> <p>The following performance data is published: number of students, degrees, and doctorates. This is published yearly (for the whole education sector).</p>	

5.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system	Comments and references
<p>All funding formula indicators with the exception of the two indicators that are not considered performance indicators (the indicators pertaining to the number of credits taken up by students). The latter two indicators are still reported on, though.</p>	

5.c. Qualitative performance indicators reported by HEIs to the government in the context of the performance-based funding system	Comments and references	Informed by data from interview with national representative.
The HEIs do not report any qualitative performance information to the government in the context of the performance-based funding system.		
5.d. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system	Comments and references	Informed by data from interview with VLIR. According to the interviewee from VLIR, the relevant database is quite well-developed. There are some other administrative burdens (e.g., different reports, the government requests use different reporting guidelines), but these are not necessarily directly linked to abiding by the reporting requirements for the formula-based funding system.
Little to no administrative burden		

A1.3.5 Any other comment

<p>This template was filled using:</p> <p>Eurydice country fiche on higher education funding: https://eacea.ec.europa.eu/national-policies/eurydice/content/higher-education-funding-3_en</p> <p>Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report. Enschede: CHEPS, URL: https://ris.utwente.nl/ws/portafiles/portal/5141288</p> <p>Flemish parliament (2012). Draft of Decree of 13 July 2012: explanatory memorandum. Available: http://docplayer.nl/14930677-Betreffende-de-integratie-van-de-academische-hogeschoolopleidingen-in-de-universiteiten.html.</p> <p>Decree of 13 July 2012 on the integration of academic university college courses in universities. Available: https://www.etaamb.be/nl/decreet-van-13-juli-2012_n2012036158.html.</p> <p>Claeys-Kulik, A. & Estermann, T. (2015). DEFINE Thematic Report: Performance-based funding of universities in Europe. Brussels: European University Association.</p> <p>Flemish Union of Students [Vlaamse Vereniging van Studenten] (VVS) (2019). Position on funding for higher education [Standpunt financiering hoger onderwijs]. See also Flemish Ministry of Education (2021). Financing calculation for higher education. Available: https://www.onderwijs.vlaanderen.be/nl/financieringsberekening-hoger-onderwijs#mei-2018.</p> <p>CHEPS (2018). Evaluation of internal allocation models of Flemish universities [Evaluatie interne allocatiemodellen Vlaamse universiteiten].</p>
--

A1.4 Belgium (Wallonia)

A1.4.1 Context

1.a. Country name - Belgium	<p>There are different types of HEIs: universities, university colleges (<i>Haute Ecole</i>), Arts College (<i>Ecole Supérieure des Arts</i>) and adult education higher education institutions. The funding system varies depending on the type of HEI.</p> <p>Institutions in charge of adult higher education (<i>Enseignement supérieur de promotion sociale</i>) are not included in this fiche.</p>
1.b. Region – Wallonia-Brussels Federation	
1.c. Higher education sub-sector	

1.b. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other fees	3 rd party funds	Total	
2008 (public universities)	50%	5%	45%	100%	
2008 (universities of applied sciences)	80%	5%	15%	100%	
2020 (public universities)	50%	5%	45%	100%	
2020 (universities of applied sciences)	80%	5%	15%	100%	

Data for 2008: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report. Enschede: CHEPS, p.46. URL: <https://ris.utwente.nl/ws/portalfiles/portal/5141288>

Funds are allocated annually based on a global allocation to cover the main lines of expenditure (education, research, support to society).

The financing of universities includes a fixed part which is incrementally allocated and reviewed every 10 years, and a variable part, based on a formula including indicators listed in section 2. Universities can also benefit from 3rd party funds: donations, sales of services to institutions, commercialisation of research results, patent licenses, etc. Reference for universities: Law on the financing and control of university institutions (27/071971)

The financing of 'universities of applied sciences' includes a fixed part based on article 12 of decree 09-09-1996 and a variable part based on article 12 prorated to the number of students weighted by credits and fields of study. Reference for 'universities of applied sciences': decree regarding the financing of 'universities of applied sciences' organised or supported by the French Community (09-09-1996)., URL: Source: URL: https://www.gallilex.cfwb.be/document/pdf/19970_032.pdf

1.c. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined / incremental)	
Share in 2010 (or closest year available)	√√		√√	
Current share (in 2020 or most recent year)	√√√		√√	

Data from Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report. Enschede: CHEPS, URL: <https://ris.utwente.nl/ws/portalfiles/portal/5141288>; p. 48.

There is no performance-related higher education funding.

The annual envelope that universities get is decided incrementally on the basis of the previous years as well as on a formula which includes indicators listed in section 2.

Law on the financing and control of university institutions (Source URL: https://www.gallilex.cfwb.be/document/pdf/02260_045.pdf)

Decree on the financing of 'universities of applied sciences' (https://www.gallilex.cfwb.be/document/pdf/19970_032.pdf)

A1.4.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission (performance)	Education		Comments and references
		Number of registered students eligible for financing Staff support (encadrement du personnel) Number of credits students take Number of students from an underprivileged background Number of diplomas awarded	For universities, the indicators are: Linked to means and activities: global number of students registered who can be financed (<i>nombre pondéré d'étudiants subsidiables</i> , NPES), staff arrangements, and number of financeable credits that students undertake. the number of registered students from unprivileged backgrounds.

indicators in bold)	Research	/		Related to results: number of PhD diplomas awarded and number of publications (at university level). Some weights are applied in the funding formula to increase or lower the amount received by institutions for each unit of activity: Area of study Level of study programme (short type, long type). Additional note regarding indicators: For universities and 'universities of applied sciences': mostly fixed and variable allocations For 'arts colleges': principally support and administrative frameworks and support to functioning
	Equally to Education and Research	Number of PhD diplomas awarded Number of publications		
	Engagement (3 rd Mission)	/		
	Other	/		

A1.4.3 General information on PBF

5.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references	Survey stated 'don't know'.
Exact	N/A		
Estimate	N/A		

5.b. Evolution of performance orientation in core funding system since 2010				Comments and references	/
Increased	Remained the same	Decreased	Don't know		
	√				

A1.4.4 Data collection and performance monitoring

6.a. Data collection mechanisms tied to the performance-based funding system	Comments and references	
The accounts must be sent to the Ministry and to the Court of Auditors annually.		/

A1.4.5 Any other comment

<p>This template was filled using:</p> <p>Eurydice country fiche on higher education funding: https://eacea.ec.europa.eu/national-policies/eurydice/content/higher-education-funding-3_en</p> <p>Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report. Enschede: CHEPS, URL: https://ris.utwente.nl/ws/portalfiles/portal/5141288</p> <p>Claeys-Kulik, A. & Estermann, T. (2015). DEFINE Thematic Report: Performance-based funding of universities in Europe. Brussels: European University Association.</p> <p>OECD (2021) Survey on the policies for higher education – resources, March, Questionnaire sent by the Ministry</p> <p>Contact persons at the Ministry of the Brussels-Wallonie federation DGESVR (European Universities)</p> <p>Interview with contact person from the Ministry of the Wallonia-Brussels federation (DGESVR) (European Universities), 12 May 2021</p> <p>Resources related to the support of FW-B to the initiative ‘European Universities’:</p> <p>https://www.ares-ac.be/fr/rerelations-internationales/universites-europeennes</p> <p>https://www.ares-ac.be/images/rerelations_exterieures/subvention-universites-europeennes/Subvention-FWB_Soutien-appel-Universites-europeennes_Modalites.pdf</p>
--

A1.5 Bulgaria

A1.5.1 Context

1.a. Country name – Bulgaria	38 public (26 universities, 11 specialized higher schools, and 1 self-contained college) and 14 private higher schools (5 universities, 2 specialized higher schools, and 7 self-contained colleges).
1.b. Higher education sub-sector	

1.b. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2010 (or closest year available)	55%	20%	25%	100 %	
2020 (or most recent year)	55 - 66%	19 - 30%	4-19%	100 %	

Based on data from 2008
Source: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report. Enschede: CHEPS, p. 45. (see here)

2020 data is based on the budgets for 2020 of Sofia University St Kliment Ohridski², Trakiiski University Stara Zagora³, University of Veliko Tarnovo⁴

² <https://www.uni-sofia.bg/>

³ <http://www.uni-sz.bg>

⁴ <https://www.uni-vt.bg/bul/pages/?zid=99&page=1445>

1.c. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined/incremental)	
Share in 2010 (or closest year available)	√√√√	0	Negotiation- √√ Historically determined / Incremental- √	
Current share (in 2020 or most recent year)	√√√√	0	Negotiation- √	

Based on data from 2008.
Source: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). *Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report. Enschede: CHEPS, p. 48. (see here)*
2020 data based on interviews with Ministry of Education.

A1.5.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission.	Education	Research	Other	Comments and references
	1. Number of admitted students and doctoral students	1. Impact of academic publications	1. Application of acquired higher education and realisation by vocation	
2. Score received during the programme accreditation procedure	2. Number of academic publications	2. Social insurance income of graduates		
	3. PhD publications	3. Unemployment of graduates		

⁵ As prescribed in Article 91 (2) of Higher Education Act, available at <https://lex.bg/laws/ldoc/2133647361>

⁶ Resolution162 of 20 June 2001 on determination of standards for support of the education of one student by professional fields, last amended 5 March 2021

<p>3. Score received during the institutional accreditation procedure</p> <p>4. Evaluation of the teaching staff</p>			<p>4. Contribution to the insurance system</p> <p>5. Ratio of social insurance income of graduates relative to the average salary for the area</p>		<p>a resolution of the Council of Ministers⁷, including the results of the assessment in the accreditation of the higher school and its specialties;</p> <p>4. the implementation of the strategic goals and tasks determined by the University and adopted by the Minister of Education, that is set in the contract between the rector of the University and the Minister of Education.</p> <p>The comprehensive assessment of the quality of education determines 60% of the funding of the university.⁸ The implementation of the strategic goals and tasks were introduced in 2020, together with the introduction of the contract between the rector of the University and the Minister of Education. For now, the achievement of the strategic goals and tasks of the University determines only the salary of the rector.⁹</p> <p>The funds for scientific activities amount to not less than 10% of the amount needed for education activities. The amount is determined with the Ordinance on the conditions and procedure for the evaluation, planning, distribution, and expenditure of the funds from the state budget for financing the scientific work of the universities. The criteria include the number and impact of publications and the number of patents. The ordinance allows universities to allocate up to 30% of their scientific grant to support international projects.</p> <p>The funds for utilities and maintenance expenses are determined on the basis of the current regulations.</p> <p><i>Sources: Interviews with experts from the Ministry of Education and Science, Higher Education Act, Resolution № 328 of the Council of Ministers of 30.11.2015, survey responses</i></p>
--	--	--	--	--	--

⁷ Resolution № 328 of the Council of Ministers of 30.11.2015 for determination of state funding for the maintenance of education in public universities depending on comprehensive assessment of the quality of education and its compliance with the needs of the labour market, last amended 1 January 2020

⁸ Survey responses

⁹ Interviews with Ministry of Education and Science

2.b. Indicators mentioned classified as performance indicators	Education	Research	Other	Comments and references	
	1. Score received during the programme accreditation procedure 2. Score received during institutional accreditation procedure 3. Evaluation of the teaching staff	1. Impact of academic publications 2. Number of academic publications 3. Ph.D. publications	1. Application of acquired higher education and realisation by vocation 2. Social insurance income of graduates 3. Unemployment of graduates 4. Contribution to the insurance system 5. Ratio of social insurance income of graduates relative to the average salary for the area		

The sources below showed that the university grant from the government has a performance-based component which is based on evaluations of performance using specific quantitative indicators related to the education process, the research activities, and the connection with the labour market.

Sources: Interviews with experts from the Ministry of Education and Science, Resolution № 328 of the Council of Ministers of 30.11.2015, Jonkers, K. & Zacharewicz, T. (2015). Performance based funding: a comparative assessment of their use and nature in EU Member States. Report by the Joint Research Centre, EUR 27477.doi10.2791/134058.

A1.5.3 Funding agreements/contracts

3.a. Main criteria used in the funding contract/agreement ranked by importance sorted by mission		
N/A	Comments and references	With legislative amendments introduced in 2020, the Minister of Education and Science and the rector of each public university now sign a management contract that includes strategic goals and tasks agreed by both parties of the contract. Currently, the achievement of these strategic goals and tasks concerns only the level of remuneration of the rector and not the overall funding for the university.

A1.5.4 Other funding systems

4.a. System in place if there is no formula or contract	<p>In Bulgaria, the legislation allows funding national priorities in higher education through the introduction of National programmes. In 2021, there are three functioning higher education extra funding programmes for higher education: “Popularizing Bulgarian higher education among Bulgarians, living abroad”, “Digital qualification”, “Improvement of competences of academic personnel, who prepares teachers”. The Programmes stem from priorities, set in the Strategy for development of higher education 2021 – 2030.</p> <p>Funding from the state budget could also be provided to finance the implementation of programmes for consolidation and optimization of public universities, developed by them and adopted by the Council of Ministers on the proposal of the Minister of Education and Science. So far, such programmes have not been developed and implemented.</p>	Comments and references	<p>Sources: Interviews with experts from the Ministry of Education and Science, Higher Education Act, National programmes information. (see here)</p>
---	---	-------------------------	---

A1.5.5 General information on PBF

5.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references
Exact	Education process- 30%; Volume and impact of research and publication outputs- 28%; Employment of graduates and links to the labour market- 42%.	

5.b. Evolution of performance orientation in core funding system since 2010				Comments and references
Increased	Remained the same	Decreased	Don't know	
√				

A1.5.6 Data collection and performance monitoring

6.a. Data collection mechanisms tied to the performance-based funding system	<p>The University Rating System collects and summarizes data on nearly 100 indicators that measure various aspects of the activities of higher education institutions, including the learning process, the learning environment, social and administrative services, research, prestige, and the professional realization of and regional significance. These indicators are formed on the basis of statistical data collected from various sources, including through sociological surveys. These sources include:</p> <p>Data from the module AdminUni, which is part of the Information System of Education and which contains information about students, doctoral students, and academic staff, as well as another information about higher schools;</p> <p>Data from the National Social Security Institute;</p> <p>Data from the National Agency for Evaluation and Accreditation for the specialties in the professional fields (including doctoral) and for the institutional and programme accreditations;</p> <p>Data from the National Center for Information and Documentation (NACID)</p> <p>Data on joint programs with foreign higher education institutions provided by higher education institutions</p> <p>Data from the international Scopus database, Web of Science database</p> <p>Data from sociological surveys among students, teachers and administrators, and executives at HEIs.</p> <p>Data from a sociological survey among employers who hired employees, graduates of higher schools in Bulgaria in the last 5 years.</p> <p>The data is collected annually and made public every year (see here). Apart from determining the funding of public universities, it serves to help students choose the best higher education institution for them</p>	Comments and references	<p><i>Sources: Interviews with experts from the Ministry of Education and Science; Methodology of the rating system (see here)</i></p>
6.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system	<p>Quantitative performance indicators based on:</p> <p>Education process:</p> <p>Programmes accreditation assessment</p>	Comments and references	<p><i>Sources: Interviews with experts from the Ministry of Education and Science, Resolution № 328 of the Council of Ministers of 30.11.2015</i></p>

Institutional accreditation assessment		
Exclusivity of the teaching staff		
Research:		
Scientific citation index (Scopus)		
Scientific citation index by scientific field (Web of Science)		
Index of citations without self-citations by scientific field (Scopus)		
Average number of citations per document (Scopus)		
Average number of citations per document (Web of Science)		
Documents cited at least once (Scopus)		
Documents cited at least once (Web of Science)		
Articles in scientific journals (Scopus)		
Articles in scientific journals (Web of Science)		
Doctoral programs in the professional field		
Realization and connection with the labour market:		
Application of acquired higher education		
Insurance income of graduates		
Unemployment among graduates		
Contribution to the insurance system		
Ratio of insurance income of graduates relative to the average salary for the professional field		

A1.6 Croatia

A1.6.1 Context

1.a. Country name – Croatia	The higher education sector in Croatia includes: 7 public universities (+ 3 private universities) 13 public universities of applied sciences (+ 2 private universities of applied sciences) 3 public university colleges of applied sciences (+ 27 private university colleges of applied sciences) This factsheet focuses on the publicly funded HEIs universities and universities of applied sciences.
1.b. Higher education sub-sector	

1.b. Composition of institutional funding (%)					Comments and
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2010 (or closest year available)	70%	30%	0%	100%	

2020 (or most recent year)	70%	30%	0%	100%	<p>Based on data from 2008.</p> <p>Source: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report. Enschede: CHEPS, p. 45. URL: https://ris.utwente.nl/ws/portalfiles/portal/5141288</p> <p>Doolan, K et al. (2012). The Croatian Higher Education Funding System in a European Context: A Comparative Study, URL:https://en.iro.hr/wp-content/uploads/2018/08/2-ACCESS_Higher_education_funding_web.pdf</p> <p>Eurydice country report higher education funding, Croatia, URL:https://eacea.ec.europa.eu/national-policies/eurydice/content/higher-education-funding-14_en</p> <p>Official Gazette (2018) Odluka o programskom financiranju javnih visokih ucilista u Republici Hrvatskoj u akademskim godinama 2018/2019, 2019/2020, 2020/2021, 2021/2022 (Decision on Program Financing of Public Higher Education Institutions in the Republic of Croatia in Academic Years 2018/2019, 2019/2020, 2020/2021, 2021/2022) https://narodne-novine.nn.hr/clanci/sluzbeni/full/2018_09_87_1708.html</p> <p>Doris, M. (2020) Public Financing of Higher Education in Croatia, Udergraduate thesis, University of Split, Faculty of economics Split, pg. 7 https://repositorij.efst.unist.hr/islandora/object/efst%3A3569/datastream/PDF/view</p>
----------------------------	-----	-----	----	------	---

1.c. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined/incremental)	
Share in 2010 (or closest year available)	√√√√	0	Negotiation- √ Historically determined / Incremental- √√√√	
Current share (in 2020 or most recent year)	√√√√	12.95	Negotiation- √ Historically determined / Incremental- √√√√	

Based on data from 2008.

Core funding has traditionally been historically determined and is incrementally increased every year.

Source: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report. Enschede: CHEPS, p. 48. URL: <https://ris.utwente.nl/ws/portalfiles/portal/5141288>

A performance-based negotiation between the Ministry and the HEI has been introduced in 2012 for 10% of the funding. This PBF part is based on input and indicators, including both nationwide and institution specific indicators for the 2018-2022 round of performance agreements. See sections 3 & 4 for further details.

Source: Peer Learning Activity (PLA) on “The Power of Funding in Steering Performance of Higher Education Institutions”, the ET2020 Working Group on Higher Education and hosted by the Croatian Ministry of Science and Education, p. 18 (URL: <https://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupMeetingDoc&docid=27471>)

Percentages provided by the Ministry of Science and Education for 2020. The remaining 87.05% are allocated for employee expenses (salaries).

A1.6.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission.	Education	Research	Other	Comments and references
	1. Number of admitted students and doctoral students	1. Impact of academic publications 2. Number of academic publications	1. Application of acquired higher education and realisation by vocation	

The model “funding formula” is not relevant for Croatia

	<p>2. Score received during the programme accreditation procedure</p> <p>3. Score received during the institutional accreditation procedure</p> <p>4. Evaluation of the teaching staff</p>	<p>3. PhD publications</p>	<p>2. Social insurance income of graduates</p> <p>3. Unemployment of graduates</p> <p>4. Contribution to the insurance system</p> <p>5. Ratio of social insurance income of graduates relative to the average salary for the area</p>		
--	--	----------------------------	---	--	--

	<ol style="list-style-type: none"> 1. Score received during the programme accreditation procedure 2. Score received during institutional accreditation procedure 3. Evaluation of the teaching staff 	<ol style="list-style-type: none"> 1. Impact of academic publications 2. Number of academic publications 3. Ph.D. publications 	<ol style="list-style-type: none"> 1. Application of acquired higher education and realisation by vocation 2. Social insurance income of graduates 3. Unemployment of graduates 4. Contribution to the insurance system 5. Ratio of social insurance income of graduates relative to the average salary for the area 		
--	---	---	---	--	--

A1.6.3 Funding agreements/contracts

3.a. Main criteria used in the funding contract/agreement ranked by importance sorted by mission

Comments and references

In September 2018, a Decision on Program Financing was brought by the Croatian Government that applies to public universities, polytechnics and colleges that sign four-year performance contracts (academic years 2018/2019, 2019/2020, 2020/2021 and 2021/2022) with the Ministry of Science and Education, which define the objectives, activities and results, performance indicators and the dynamics of submitting reports on the implementation of the contract.

Program funding for teaching, research and the arts consists of core funding and results-based funding.² Co-financing of material costs of scientific activity includes co-financing of basic scientific activity, development of the science system, scientific, artistic and research infrastructure and equipment, and co-financing of publishing scientific journals.

Basic funding of material costs of scientific and artistic activities is calculated based on the number of employed scientists (elected to scientific or artistic title) in full-time (FTE) in a particular field, and is proportional to the number of scientific papers published in journals introduced in the Web of Science database for STEM fields of science, i.e. the number of papers published in journals introduced in the Web of Science database and the SCOPUS database for the social, humanistic and interdisciplinary field of science and art, published during one year, according to the predefined amounts specified in the Decision.

Universities concluding contracts with the Ministry of Science and Education, can be allocated additional financing based on results in addition to the basic financing of the material costs of the scientific activity. Results-based financing of scientific activity can amount to up to 20% of the basic financing of scientific activity costs, and is based on the value of contracted national and international competitive scientific projects, ie their share in total revenues, on the share of completed doctoral students who are not employed in science and higher education in relation to the total number of completed doctoral students in one academic year, and on the number of papers published in the first quartile (Q1) in journals introduced into the Web of Science database by FTE.

Additional financing of material costs of artistic activity based on results is calculated in such a way that it is proportional to the number of permanent employees in the artistic-teaching profession and the number of students, and inversely proportional to the number of external associates.

Funding for the specific profile of the institution may amount to a maximum of 3% of the total amount of funds allocated to each higher education institution for basic funding and funding based on results for teaching, scientific and artistic activities

Co-financing of material costs of teaching activities includes a full subsidy for the participation of full-time students in study costs and co-financing of material costs to public higher education institutions.

The basic financing of the material costs of teaching activities is calculated on the basis of the amount of the full subsidy of participation in the study costs of an individual student, depending on the type of study program (university study and professional study) and scientific or artistic field, and on the basis of the number of students who meet the conditions for exemption from participation in the costs of studies, according to the pre-defined amounts specified in the Decision.

*Results-based funding (Fn), which is another term for performance-based funding in Croatia, can amount to up to 5% of the basic funding of material costs of teaching activities (Tfn), and the amount is proportional to the number of graduates in the academic year (z) and inversely proportional to the number of students enrolled in the first year of that academic year (u). The formula is: $F_n = z/u * 0.05 * T_{fn}$.*

(Source: Karlovac University of Applied Sciences, Contract on program financing;
http://www.vuka.hr/fileadmin/user_upload/katalog_informacijama/programski_ugovor/2020/Ugovor_o_programskom_financiranju_VUKA_2019-2022.pdf)
The formula proceeds from the Decision (Official Gazette 87/2018)
Official Gazette (2018) Odluka o programskom financiranju javnih visokih ucilista u Republici Hrvatskoj u akademskim godinama 2018/2019, 2019/2020, 2020/2021, 2021/2022 (Decision on Program Financing of Public Higher Education Institutions in the Republic of Croatia in Academic Years 2018/2019, 2019/2020, 2020/2021, 2021/2022)
https://narodne-novine.nn.hr/clanci/sluzbeni/full/2018_09_87_1708.html

Official Gazette (2018) Odluka o programskom financiranju javnih visokih ucilista u Republici Hrvatskoj u akademskim godinama 2018/2019, 2019/2020, 2020/2021, 2021/2022 (Decision on Program Financing of Public Higher Education Institutions in the Republic of Croatia in Academic Years 2018/2019, 2019/2020, 2020/2021, 2021/2022);

A1.6.4 Other funding systems

4.a. System in place if there is no formula or contract	<p>In Croatia public budget allocation to HEIs is almost entirely based on previous year's allocation, also known as historical/incremental allocations, whereby "the size of the grant is based on previous years' allocations and In Croatia public budget allocation to HEIs is almost entirely based on previous year's allocation, also known as historical/incremental allocations, whereby "the size of the grant is based on previous years' allocations and reflects past costs in particular".</p> <p>This incremental allocation takes into account the number of enrolled students in individual HEI, the prices of individual study programmes and their quality following an evaluation in accordance with the Scientific Activity and Higher Education Act.</p> <p>The mechanism of negotiated funding covers 10% of the funding, as covered in section 3. =</p> <p>Public universities, polytechnics and higher education institutions are financed from the State budget, taking into account the capacities of individual higher education institutions, the price of individual studies and the assessment of their quality on the basis of evaluation procedures of HE institutions.</p> <p>Higher education institutions are financed from: the founders' funds, the State budget of the Republic of Croatia, the budgets of counties, cities and municipalities, tuition fees, revenues from scientific, research, artistic and professional projects, scientific and professional studies and expertise, foundations, donations and assistance, revenues from publishing , revenues generated on the market, revenues from property, shares in companies, revenues generated from legal entities referred to in Article 66 of the Law on Scientific Activity and Higher Education, as well as revenues from investments of natural and legal persons and other sources. Universities, polytechnics and colleges can be funded only from those sources that do not affect their independence and dignity. Own revenues can be generated only by activities that do not harm the basic tasks of universities, polytechnics and colleges, such as scientific, artistic and development research, especially the realization of scientific programs of strategic interest to the Republic of Croatia, artistic creation and professional work and undergraduate , graduate and postgraduate education and vocational higher education, artistic and professional activity, in accordance with the needs of the community in which they operate.</p> <p>Funds from the State budget of the Republic of Croatia intended for universities, polytechnics and colleges are remitted to budget users in the total amount (lump sum), and in the state budget they are planned by type of expenditure (staff expenditures, material expenditures, etc.), individual purposes, in accordance with the statute and other general acts.</p>	Comments and references
---	---	-------------------------

Based on data from 2008.
 Source: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report.

A1.6.5 General information on PBF

5.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references
Exact	10% of core funding (2012- 2015)	
Estimate	20% of core funding (2018-2022)	

PBF was introduced in Croatia’s higher education system in 2012. Three-year bilateral contracts were the instruments used for PBF. The Ministry of Science, Education, and Sports (MSES) entered these contracts with each of the country’s eight (8) public universities.

Performance contracts are contracts between the founder and the higher education institution on funding based on agreed programmatic objectives, results, and performance indicators. The 2012-2015 performance-funding contracts included the provision that the MSES would subsidize full-time university students throughout the three years. Further, each university would adopt mandatory performance measures provided by MSES, as well as adopt performance measures selected by the universities (and research institutes where applicable).

Source: The World Bank (2017). Croatia- RAS Higher Ed Finance Reforms Expanding Performance-Based Funding in Higher Education: Institutional Roadmaps. ([see here](#))

The current performance-based funding 2018-2022 agreement aims to strengthen the link between funding and the achievement of agreed objectives. For the first time, research funding was an integral part of the funding agreements, but the university payroll is still not covered. Both input and output indicators are used. PBF is based on national indicators that all universities need to follow and institution-specific indicators which can be selected from the predefined list of indicators (list can be broadened during negotiations) and which reflect an institutional profile.

Source: Peer Learning Activity (PLA) on “The Power of Funding in Steering Performance of Higher Education Institutions”, the ET2020 Working Group on Higher Education and hosted by the Croatian Ministry of Science and Education. ([see here](#))

Ministry of Science and Sport (2019), Performance-based HE financing. ([see here](#))

5.b. Evolution of performance orientation in core funding system since 2010				Comments and references
Increased	Remained the same	Decreased	Don't know	
√				

A1.6.6 Data collection and performance monitoring

6.a. Data collection mechanisms tied to the performance-based funding system	Comments and references
<p>The number of published scientific papers is submitted to the Ministry of Science and Education for each (previous) calendar year no later than the end of February, and the basis for the payment of basic funding for material costs of scientific and artistic activities in the academic year $x/x+1$ years are data from $x-1$.</p> <p>The data required for the calculation of funds for program financing are collected once a year through standardized tabular forms and the annual report on the implementation of program contracts for a particular academic year.</p>	

6.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system	Comments and references
<p>Based on the Decision on program financing of public higher education institutions in Croatia in the academic years from 2018- 2022, HEIs PBF is monitored based on the following indicators:</p> <ul style="list-style-type: none"> continuing activity (basic funding): number of university and professional students by fields of science (STEM, Social Sciences and Humanities, Arts) who are entitled to a full subsidy for participation in study costs teaching activity (results-based funding): number of completed full-time students, the number of full-time students enrolled in the first year scientific activity (basic funding): number of scientists and artists in full-time equivalent (FTE) by fields of science (STEM, Social Sciences and Humanities, Arts) employed at the expense of the State Budget, number of papers published in journals introduced in the database Web of Science (WoS) and SCOPUS database by fields of science (STEM, Social Sciences and Humanities, Arts) in the previous year. scientific activity (results-based funding): the value of national and international competitive scientific projects in a given year, the amount of total revenue from all sources in a given year, the number of completed doctoral 	

<p>students in the academic year who are not employed in the system of science and higher education, the number of completed doctoral students in ac. year, the number of papers published in the first quartile (Q1) in journals introduced into the Web of Science database.</p> <p>Financing of the specific profile of the institution (agreed specific indicators in the negotiation process, not common to all higher education institutions):</p> <ul style="list-style-type: none"> • harmonization of study programs with the qualification standards from the Register of the Croatian Qualifications Framework: number of registered harmonized study programs with the CROQF • employment - based on the results of employment monitoring: share of students who completed their studies in n + 1 time of nominal duration of studies (n) • share of incoming foreign professors/scientists (FTE) (incoming mobility of scientists): number of foreign professors/scientists • share of incoming international students (incoming student mobility): number of students, number of study programs in foreign languages • increase in the number of scientific author's books with international review: number of scientific author's books with international review • increase in the share of first-generation graduates in the family in higher education in the total number of graduates: in the share of graduates (expressed in percentages) of first-generation students in the higher education family in the total number of graduates <p>Along with the performance contracts, the Ministry of Science and Education improved the science system in this convocation with additional measures, guided by the principle that the greatest effect is achieved by additional support to the most successful scientists. These measures include:</p> <ul style="list-style-type: none"> • simple procedure of employment of Croatian returnee scientists, but also foreign citizens, i.e. scientists under certain conditions (primarily if they were employed at one of the top 300 universities) • Horizon 2020 and ESFRI project leaders are provided with additional employment of two associate assistants and/or postdoctoral fellows, thus increasing the efficiency of the scientific groups managed by these leaders, • Scientists with quality, but unfortunately unsuccessful Horizon 2020 applications (due to the lack of funding) receive financial support of up to HRK 40,000.00, with the aim of additional funding for the work of scientific groups and the preparation of future Horizon 2020 applications • Horizon 2020 projects that require additional funds are co-financed • specialist training for ERC project applicants are financed • supports and finances entry into international collaborations for which a critical number of Croatian scientists are interested 	<p>Further details are provided by the Ministry of Science and Education.</p> <p>Ministry of Science and Education (2020) Program funding of public higher education institutions and public scientific institutes. The report is in the middle of the period 2018-2020. (see here)</p>
--	---

6.c. Qualitative performance information reported by HEIs to the government in the context of the performance-based funding system	Comments and references	<i>Decision on program financing of public higher education institutions in the Republic of Croatia in the</i>
---	--------------------------------	--

Based on the Decision on program financing of public higher education institutions in the Republic of Croatia in the academic years 2018- 2022, HEIs PBF is monitored based on the following indicators: <ul style="list-style-type: none">• Compliance with study programs with the qualification standards from the Register of the Croatian Qualifications Framework.		<i>academic years 2018/2019, 2019/2020, 2020/2021, and 2021/2022. (see here)</i>

A1.6.1 Any other comment

This template was filled using:

Budimir V., Dragija Kostić M., Dražić Lutilsky I., Vašiček V. (2018) *Cost management and performance measurement in the public higher education system* (Upravljanje troškovima i mjerenje uspješnosti u sustavu javnog visokog obrazovanja) (book), Tim4Pin, Zagreb. ([see here](#))

A1.7 Cyprus

A1.7.1 Context

1.a. Country name – Cyprus	7 Universities (3 public and 4 private), 5 Public Institutions of Higher Education (vocational programmes of study), 36 Private Institutions of Higher Education (academic and vocational programmes of study).
1.b. Higher education sub-sector	

1.b. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2008 (closest year available)	80%	15%	5%	100%	
2012 (ICF/CHEPS survey) 2018 (ETER)	72% 68%	13% 21%	15% 11%	100%	

For 2008, data from Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). *Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report*. Enschede: CHEPS, p. 45. [URL](#). [Eurydice](#) provides a similar picture for 2011, with public higher education institutes receiving between 69% and 92.7% of their budget from the state.

For 2012, data from Cyprus Ministry of Education (2012) Higher Education in Cyprus, Department of higher and tertiary education. [URL](#)

About the ETER data (for 2018): Breakdown available only for 4 of 25 higher education institutions.

1.c. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined/incremental)	
Share in 2008 (or closest year available)			Negotiation: √√√√	

For 2008, data is from Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). *Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report*. Enschede: CHEPS, p. 48. [URL](#).

Amount of public funding received by institutions is determined by budget headings such as institution's requirements arising from the level of student enrolment, developments in the existing infrastructure, the setting up of new faculties and the introduction of new programmes.

Current share (in 2012 or most recent year)			Negotiation: √√√√	The basic funding for research is based on the needs presented by institutions during the negotiation phase. There are no specific criteria related to research. Source: Eurydice (2019). Cyprus, higher education funding. URL .
---	--	--	-------------------	--

A1.7.2 Other funding systems

4.a. System in place if there is no formula or contract	<p>Negotiated funding is the only funding mechanism used in Cyprus for determining the amount of the public operational grant for public universities. This mechanism is described as "grant distributed based on negotiations between the ministry/agency and an individual institution about the amount to be awarded and the amount is based on a budget estimate submitted by the institution". A budget proposal is submitted to the Ministry of Education based on the funding articles from the previous years. Approval by the Ministry of Finance is needed, and discussions are focused on a) changes in the funding of pre-existing articles, b) any new proposed articles.</p> <p>This is confirmed by interviews, quoting: <i>"The core funds are determined as a result of a negotiation procedure between the Government and the Universities based on pre-determined budget allocated by the government to the public Universities."</i></p>	Comments and references
---	--	-------------------------

Based on data from 2008. Source: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). *Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report*. Enschede: CHEPS, p.47. [URL](#).

Interview with Senior Educational Officer, Department of Higher Education of the Cyprus Ministry of Education, Culture, Sport and Youth.

4.b. Inclusion of performance-related elements	<p>Input-related criteria such as number of enrolled students, number of staff, number of study places etc. are the main drivers in the direct public operational grants allocated to public universities. Output-related criteria such as students' results, number of research publications etc. have some importance in determining the direct public operational grants allocated to public universities.</p> <p>Other parameters considered during the funding negotiations are the level of student enrolment, developments in the existing infrastructure, the setting up of new faculties and the introduction of new programs.</p>	Comments and references	<p>Based on data from 2008: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). <i>Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report.</i> Enschede: CHEPS, p.52. URL.</p> <p>Based on data from 2021: Eurydice, Higher Education Funding. URL.</p>
---	---	--------------------------------	---

4.c. Criteria in the funding system linked to the goal of internationalisation in higher education	Education-related internationalisation criteria	None	Comments and references	<p>Based on data from 2008: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). <i>Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report.</i> Enschede: CHEPS, pp.57- 60. URL.</p>
	Research-related internationalisation criteria	None		<p>The Ministry of Education and Culture encourages and supports HEIs to actively participate in European and international cooperation programmes. However, there is no mention of specific funding dedicated to fostering internationalisation within HEIs. Source: Cyprus Ministry of Education (2012) Higher Education in Cyprus, Department of higher and tertiary education. URL.</p>
	Internationalisation criteria that are equally related to education and research	None		<p>Some criteria that influence the negotiation procedures are indirectly affected by internationalisation. For example:</p> <ul style="list-style-type: none"> • Student and staff mobility • Participation of staff in international conferences and seminars • European and international programmes/joint programmes • Bilateral agreements between Universities • Research activities with other Universities abroad
	Engagement (3 rd mission, entrepreneurship, etc.) - related internationalisation criteria	None		<ul style="list-style-type: none"> • Participation to international Universities' Organizations and other International Organizations • Participation in European Universities Alliances <p>Collaboration in the negotiation procedure between the Governmental authorities and the Universities allows for changes, that is to include in the budget of public Universities a new funding category, such as "European Universities Initiative".</p>

A1.8 Czech Republic

A1.8.1 Context

1.a. Country name – Czech Republic	Higher education institutions are categorised as: Public: institutions (legally established) – no binary system.
1.b. Higher education sub-sector	Private: institutions, existing on the basis of the state approval State-run: institutions (only in the case of military and police academies), legally established under the control of the relevant ministries. This fiche will focus on public higher education institutions.

1.b. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2010 (or closest year available)	93-97%	3-7%		100%	
2020 (or most recent year)	89-93%	7-11%		100%	

The financing of public higher education institutions comes from a number of sources.

The main source is the State budget. Other resources are other state resources, including the National Fund, regional and municipal budgets, yields of auxiliary activities, fees associated with studies, returns on property, or gifts and legacies¹⁰.

A State budget is granted predominantly on the basis of the per-capita amounts, annually. Other funds are gained mainly through student fees, property revenue, revenue from instructional and supplementary activities, donations, bequests, or funds from other public sources¹¹.

¹⁰ European Commission, Eurydice, Czech Republic – Higher Education Funding, see here.

¹¹ European Commission, Eurydice, Czech Republic – Higher Education Funding, see here.

1.c. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined/incremental)	
Share in 2010 (or closest year available)	√		√√√√	<p>Funding is allocated to HEIs based on a 4-budget heading rule.</p> <p>Budget heading I is the institutional part of the budget that represents 80% of the total budget. The budgetary sphere consists of three parts - a fixed part, a performance part, and, since 2019, a part called 'social demand'.</p> <p>The ratio of the fixed part and the performance part is determined by the approved financial volumes in both parts of the budget breakdown. The ratio for 2021 amounts to 83% (fixed part) and 17% (performance part)¹².</p> <p>Budget heading II - Social affairs of students to the extent of approximately 10% of the total budget (BH_I – BH_IV).</p> <p>Budget heading III – Development of HEIs represents about 5 % of the total budget and contains funds for the development of public HEIs.</p> <p>Budget heading IV – International cooperation and others represent the remaining approx. 5 % of the total budget in headings I – IV. This budget heading supports the international cooperation of public higher education institutions¹³.</p> <p>A revised higher education funding system (2018) in the Czech Republic aims to improve higher education quality, enhance specialisation among institutions and programmes, and increase completion rates.</p>
Current share (in 2020 or most recent year)	√√		√√√	

¹² Ministry of Education, Youth and Sports, Rules for providing contributions and subsidies to public higher education institutions by the Ministry of Education, Youth and Sports for 2021, 2021

¹³ European Commission, Eurydice, Czech Republic – Higher Education Funding, [see here](#).

A1.8.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission	Education	Research	Other	Comments and references
	1. International student mobility 2. Graduation rate 3. Employment of graduates 4. Foreign academic and research staff 5. Foreign students	1. Research performance ¹⁵	1. External incomes 2. Artistic outcomes	
2.b. Indicators mentioned classified as performance indicators	Education	Research	Other	Comments and references
	1. International student mobility 2. Graduation rate 3. Employment of graduates 4. Foreign academic and research staff 5. Foreign students	1. Research performance	1. External incomes 2. Artistic outcomes	

¹⁴ Ministry of Education, Youth and Sports, Rules for providing contributions and subsidies to public higher education institutions by the Ministry of Education, Youth and Sports for 2021, 2021, p.6

¹⁵ This indicator consists of three parts. One part is defined as the share of higher education institutions in the results of the evaluation of all higher education institutions in the segment according to the Methodology for the evaluation of research organizations and the evaluation of targeted support programs for research, development and innovation.

A1.8.3 General information on PBF

5.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references
Exact	17%	

5.b. Evolution of performance orientation in core funding system since 2010				Comments and references
Increased	Remained the same	Decreased	Don't know	
√				<p>Performance indicators were introduced into the funding formula in 2009. Initially, 9% of public funding was allocated based on these indicators, but this share increased to 20% (as of 2015)¹⁶.</p> <p>This was validated in the interview with representatives of the MEYS. In 2015, the share was the highest, decreased to 10% in 2017, and has been increasing since then.</p> <p>The interviewees reported that the MEYS aims to achieve the share under the performance part that would maintain competitiveness and motivation among HEIs. The stability of the funding mechanism of HEIs was not fully ensured in 2015 due to insufficient funds under the fixed part of the Budget headline I. That is why the share of the fixed part increased in 2017.</p>

A1.8.4 Data collection and performance monitoring

6.a. Data collection mechanisms tied to the performance-based funding system	Comment

¹⁶ Claeys-Kulik, A.-L., Define thematic report: Performance-based funding of universities in Europe, European University Association, 2015

<p>The data is collected by the Ministry of Education, Youth and Sports from the student registry and Research, Development and Innovation Council. The Research, Development and Innovation Council is a professional and consultancy body of the Government of the Czech Republic in the field of research, experimental development, and innovation.</p> <p>The student register called SIMS constitutes associated information of student registries. The register contains data on individual university students enrolled in a Bachelor's or Master's or Doctoral study program¹⁷. The data is published annually on the website of the Ministry.</p>		<p>The answer is based on desk research, the survey response, and interview with representatives of the MEYS.</p>
--	--	---

<p>6.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system</p> <p>HEIs report two quantitative performance indicators to the Government – external incomes and foreign academic and research staff. More specifically, the MEYS obtain this information from annual reports published by HEIs.</p>	<p>Comments and references</p>	<p>The answer is based on desk research, the survey response, and interview with representatives of the MEYS.</p>
--	--------------------------------	---

<p>6.c. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system</p> <p>The Strategic Plan of the Ministry for higher education for the period from 2021 to June 2022 includes a section 'Reduce the administrative burden on the staff of higher education institutions. However, there is nothing explicitly stated on the reporting requirements of PBF as such¹⁸.</p> <p>The perceived administrative burden for HEIs is moderate. In general, HEIs are required to collect a wide range of data. In order to abide by the reporting requirements, HEIs need to gather data on around sixty different indicators. They further reported that the data HEIs report to the student register should not be overly burdensome as the system is set up once when launched and the data is then collected automatically.</p>	<p>Comments and references</p>	<p>The answer is based on desk research, the survey response, and interview with representatives of the MEYS.</p>
--	--------------------------------	---

¹⁷ Website of the Ministry of Education, Youth and Sports, SIMS – associated information of student registries, [see here](#).

¹⁸ The Strategic plan of the ministry for higher education for the period from 2021 in June 2020, p. 58

A1.9 Denmark

A1.9.1 Context

1.a. Country name - Denmark	There are different types of HE institutions: General and specialized universities (8 in total), university colleges (8), business academies (8), and a large number of specialized institutions, such as maritime institutions (11), and institutions in fields such as architecture, design, music, and fine and performing arts. The template focuses on universities.
1.b. Higher education sub-sector	

1.b. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other fees	3 rd party funds	Total	
2010	59%	2%	27%	88%	
2019	58%	2%	31%	92%	
2019 (ETER)	66%	4%	24%	94%	

2010 and 2019: calculated based data from Universiteternes Statistiske Beredskab at <https://dkuni.dk/tal-og-fakta/beredskab/> in particular <https://dkuni.dk/wp-content/uploads/2020/06/sectortal-tabel-a.xlsx>

Remaining shares cover Research based support to public authorities, other public contributions, and other unspecified income

ETER data for 2019 are based on 38 HEIs of all types, with data missing for 3 HEIs.

1.c. Share of funding mechanism type				Comments and references
<i>Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)</i>				
	Funding formula	Funding contract	Other (e.g., Historically determined / incremental)	
				<p>Funding formula: https://ufm.dk/uddannelse/videregaende-uddannelse/institutionstilskud</p> <p>Research funds: https://ufm.dk/uddannelse/videregaende-uddannelse/universiteter/okonomi/forskningsmidler/forskningsbevillinger and https://ufm.dk/uddannelse/videregaende-uddannelse/universiteter/okonomi/basismidler-efter-kvalitet</p> <p>Education and research: https://dkuni.dk/wp-content/uploads/2020/06/sectortal-tabel-a.xlsx and https://dkuni.dk/wp-content/uploads/2020/06/sectortal-tabel-a.xlsx</p>

Share in 2010 (or closest year available)	√√√√		√		<i>The funding contract is related to a historical determined grant. While the historically determined grant (final payment) may vary depending on performance, the payment is that of a historically determined “base” grant.</i>
Current share (in 2020 or most recent year)	√√√ (Education) √√ (Research) √√ (Research and HE)		√√ (HE) √√√ (Research) √√√ (Research and HE)		

A1.9.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission (performance indicators in bold)	Education	ECTS credits accumulated by students Graduates’ actual time-to-degree Graduate employment	Comments and references	<p>For educational grants, credits accumulated (ECTS) represent 67.5% of total educational grant. Time to degree represents between 3.4% and 5.56% of total funds. Graduate employment represents between 3.4% and 5.56% of total funds (https://ufm.dk/uddannelse/videregaende-uddannelse/institutionstilskud/resultatstilskud).</p> <p>Additional funds are allocated for decentralised educational offers (as part of formula).</p> <p>In 2020 85% of research allocations were fixed. The remaining share is redistributed:</p> <ul style="list-style-type: none"> 45% proportionally education funding 20% proportionately to externally obtained research funds 25% based on bibliometric indicators 10% proportionately to PhD candidates with completed dissertation <p>(https://ufm.dk/uddannelse/videregaende-uddannelse/universiteter/okonomi/basismidler-efter-kvalitet)</p>
	Research	Size of institution’s education budget Bibliometric indicators Volume of externally obtained research funds (from the EU, research councils, etc.) Number of PhD candidates who have completed their dissertation		
	Equally to Education and Research	/		

	Engagement (3 rd Mission)	/	
	Other	/	

A1.9.3 Funding agreements/contracts

3.a. Main criteria used in the funding contract/agreement ranked by importance sorted by mission	Education	/	Comments and references	<p>Indicators are determined in negotiations. The contract must contain strategic goals for the university's activities in research, research-based education and societal and international collaboration (https://ufm.dk/uddannelse/videregaende-uddannelse/universiteter/styring-og-ansvar/strategiske-rammekontrakter-universiteter).</p> <p>Assessment takes place in dialogue with the ministry. As such indicators cannot be individually rated or linked to funding. However, one fifth of the total basic grant is dependent on an overall assessment of the extent to which the educational institution has fulfilled the strategic framework contracts (evaluation in dialogue with the institutions),</p> <p>See goals of educational institutions here https://ufm.dk/uddannelse/videregaende-uddannelse/universiteter/styring-og-ansvar/strategiske-rammekontrakter-universiteter.</p>
	Research	/		
	Equally to Education and Research	/		
	Engagement (3 rd Mission)	/		
	Other	/		

3.b. Criteria in the funding contract linked to the goal of internationalisation in higher education	Education-related internationalisation criteria	Research-related internationalisation criteria	Comments and references	<p>There are no mandatory targets or indicators related to internationalization. Some contracts have a few indicators related to internationalisation, including:</p> <p>5 out of 8 universities do not have any internationalisation indicators, although the university may commit itself to make an effort to promote the university internationally.</p> <p>Source: (https://ufm.dk/uddannelse/videregaende-uddannelse/universiteter/styring-og-ansvar/strategiske-rammekontrakter-universiteter).</p>
	Proportion of outgoing exchange students (University of Copenhagen)	<p>Proportion of international researchers (Roskilde)</p> <p>Proportion of international PhD students, postdoc, assist professors and professors (Aalborg)</p>		

A1.9.4 General information on PBF

5.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references
Exact	N/A	
Estimate	48%	

For the HE part of the grant: **85%** (accounting for outputs). For the research part of the grant **15%** if the “result” part of the research grant is to a considerable part determined by the educational grant. If this share is disregarded, the share is **8.25%**.

Source: Ministry of Education and Research: Tilskud til uddannelse — Uddannelses- og Forskningsministeriet (ufm.dk)

Source research funds: Forskningsmidler — Uddannelses- og Forskningsministeriet (ufm.dk) and Basismidler efter resultat — Uddannelses- og Forskningsministeriet (ufm.dk)

Estimates calculated based on the data on universities income, from 2019 available at <https://dkuni.dk/wp-content/uploads/2020/06/sectortal-tabel-a.xlsx>

5.b. Evolution of performance orientation in core funding system since 2010				Comments and references
Increased	Remained the same	Decreased	Don't know	
√ (grants for research)		√ (grants for HE)		

The share of funds allocated based on performance is increased every year, with 2% of the fixed base reallocated annually to the performance base.

The overall share of funds which are associated to performance has decreased because the taximeter grant was reduced; the basic funds were introduced, and because the diploma bonus was minimised. However, it also changed focus, placing more weight on quality and outcome indicators (notably employability).

A1.9.5 Data collection and performance monitoring

<p>6.a. Data collection mechanisms tied to the performance-based funding system</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Comments and references</p>	<p>Vejledning om afrapportering af de strategiske rammekontrakter i den første statusredegørelse til ministeriet og årsrapport 2019 Available here.</p> <p>Jongbloed, B. & H. de Boer (2020), <i>Performance Agreements in Denmark, Ontario and the Netherlands</i>. Enschede: CHEPS. Available here.</p>
<p>Data on study credits, diplomas and other indicators that feed into the funding formula are based on national data collection by universities. Data related to the Strategic Framework Contracts are provided by the institution itself on the basis of data sources agreed with the Ministry. The institutions have three reporting obligations annually.</p> <p>The status report and action plan are sent to the ministry as a separate document (in spring, followed by discussion during summer). The annual report complements this data, providing both an overall judgement on performance, and repeats data from the status review.</p> <p>Upon expiry of the contract, the institution reports on the final achievement of each of the strategic goals. This serves as an input for the assessment by the <i>Danish Agency for Institutions and Education Grants</i>.</p>		<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Comments and references</p> <p>See for example the annual report 2019, Copenhagen university, available here; Copenhagen Business School annual report 2020 here</p>
<p>6.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Comments and references</p>	
<p>Much of the quantitative data reporting focus on funding formula indicators, including: For education: student FTE, student completion, number of paying students, PhDs, incoming and outgoing students For research: research publications, patent applications, number of projects with the private sector, number of external projects, economic value of collaboration with the private sector It should be observed however that that reporting varies. For example, Copenhagen Business School has in 2020 a section on internationalisation. Some reports provide quantitative data on the performance of the indicators defined in the strategic framework contracts. Data is published annually online.</p>		<p>6.c. Qualitative performance indicators reported by HEIs to the government in the context of the performance-based funding system</p>
<p>Relevant to the strategic framework contracts only. The annual reports of the individual universities provide an overall judgement on performance and repeat data from the status review. Data is qualitative, and to varied degrees quantitative, providing information about general progress, measures undertaken, and select examples of data on the performance indicators.</p>	<p>6.d. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Comments and references</p> <p>Data collection related to the contracts and formula is a serious effort, but it should be noted that a large part of the information needs to be collected anyway.</p>

Moderate.

A1.9.6 Any other comment

This template was filled using:

Schmidt, E.K. (2012) University funding reforms in the Nordic countries, in: F. Maruyama and I. Dobson (eds.) Cycles in university reform: Japan and Finland compared, pp. 31-56), Tokyo: Center for National University Finance and Management.

OECD Education Policy Outlook Denmark (2020) <https://www.oecd.org/education/profiles.htm>

<https://ufm.dk/en/education/higher-education/danish-universities/the-universities-in-denmark/funding-for-danish-universities/funding-for-higher-education-1/funding-for-higher-education>

<https://ufm.dk/en/education/higher-education/danish-universities/the-universities-in-denmark/funding-for-danish-universities/funding-for-research-1>

<https://www.altinget.dk/uddannelse/artikel/da-taxametersystemet-er-haabloest-foraeldet>

www.uvm.dk/pub/1998/taxameter/hel.htm

DK analyse af uddannelsesområdets styringssystem 2005: Rapport om analyse af uddannelsesområdets styringssystem November 2005. (Uddannelsesudvalget UDU alm. del - Bilag 101 Offentligt)

Styringsanalysen. Analyse af uddannelsesområdets styringssystem. Rapport fra Udvalget for analyse af uddannelsesområdets styringssystem, 2005

Interviews with contacts from:

University of Copenhagen, 1/6/2021

Technical University of Denmark, 2/6/2021

Universities Denmark (interest organisation of Danish universities), 3/6/2021

A1.10 Estonia

A1.10.1 Context

1.a. Country name - Estonia	In Estonia, higher education (HE) is divided into professional higher education (<i>rakenduskõrgkool</i>) and university (<i>ülikool</i>).
1.b. Higher education sub-sector	<p>There are 19 higher educational institutions in Estonia. Six of these are private HEIs, six state universities, and seven state institutions of professional higher education. The six private HEIs can receive State funding on the same ground as public institutions, but cannot charge tuition fees if they receive state funding.</p> <p><i>Source: Eurydice national country report, Estonia and Estonian Quality Agency for higher and vocational higher education (2017) 'Higher education in Estonia, 2017'.</i></p>

1.b. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other fees	3 rd party funds	Total	
2010 (or closest year available)	48%	13%	39%	88%	
2020 (ICF/CHEPS survey)	78%	10%	12%	92%	
2019 (ETER database)	60%	10%	30%	100%	

Data for 2008. Source p.45: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report. Enschede: CHEPS. (see here)

Data for 2019. Source Statistics Estonia. (2020). HT71: Educational expenditure of public universities by the source of financing. (see here)

The largest share of funds comes from grants from the State; which is complemented by other sources: including a small budget by the local government, domestic and foreign 3rd party sources, and R&D activities.

The OECD has identified continuing EU funding and private non-household funding as key issues for Estonian higher education in 2020.

Tuition fees may apply for some categories of students, including part-time students, those who study in a language other than Estonian, or who re-register after deregistration; although there is a general principle of free education.

For the most recent data, only a percentage of the overall State funding was available, which includes funding from both State budget and other state sources, including from ministries, state institutions (e.g., Estonian Agricultural Registers and Information Board, Environmental Investment Centre), and state-owned foundations (e.g., Innove, Archimedes, Estonian Research Council, etc.). The 2019 percentage of 3rd party funds

					<p>consists of own funds, e.g., from in-service training, contributions by owners of the educational institution, loans; and of foreign sources /international sources – funds from foreign legal persons and institutions, international organisations, including the European Union programmes or funds.</p> <p>Source: OECD (2020) <i>Education Policy Outlook Estonia</i>, OECD: Paris, p. 4. (see here) and Eurydice national country report, Estonia. (see here)</p>
--	--	--	--	--	--

1.c. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined / incremental)	
Share in 2010 (or closest year available)	√	√√√		
Current share (in 2020 or most recent year)	√√	√	√√√	

Data for 2008 from p.48 Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). *Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report*. Enschede: CHEPS, URL: <https://ris.utwente.nl/ws/portalfiles/portal/5141288>

According to Higher Education Act (2019), the core funding ('activity support' in the Act) is made up of

- 1) 80% of a basic grant which is calculated, taking into account the activity support from the previous three years and the total activity support allocated to HEIs in that period, i.e., it is historically determined
- 2) 20% of PBF, made up of 17% allocated on the basis of a funding formula based on indicators and 3% allocated on the basis of a qualitative evaluation of fulfilling the previous performance agreement.

Source: *Higher Education Act (2019)*. RT I, 19.03.2019 ([see here](#))

A1.10.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission	Education	Other	Comments and references
	<ol style="list-style-type: none"> 1. The share of students who graduated within nominal timeframe (in all admitted students) - 35% 2. The share of students admitted to fields that have been assigned to the particular university in the funding contract as their fields of focus (out of all admitted students) - 15%; 3. The share of students who have studied or completed an internship abroad (out of all students) – 10% 4. The share of international graduates among all graduates – 10% 5. The proportion of HEI's income generated by educational activities, compared to core funding allocated the HEI – 10% 	<ol style="list-style-type: none"> 1. The share of graduates who are enrolled in further studies or employed (out of all graduates) - 20% 	
2.b. Indicators	Education	Other	Comments
	<ol style="list-style-type: none"> 1. The share of students who graduated within nominal timeframe (in all admitted students) - 35% 	<ol style="list-style-type: none"> 1. The share of graduates who are enrolled in further studies or employed 	<p>All the metrics mentioned above (2.a.) - quality indicators, efficiency indicators and societal development indicators - are classified as performance indicators in the Higher Education Act (2019) and its appendix.</p>

2.	The share of students admitted to fields that have been assigned to the particular university in the funding contract as their fields of focus (out of all admitted students) - 15%;	(out of all graduates) - 20%		
3.	The share of students who have studied or completed an internship abroad (out of all students) – 10%			
4.	The share of international graduates among all graduates – 10%			
5.	The proportion of HEI's income generated by educational activities, compared to core funding allocated the the HEI – 10%			

A1.10.3 Funding agreements/contracts

3.a. Main criteria used in the funding contract/agreement ranked by importance sorted by mission	Education	n/a	Comments and references	
	Research	n/a		
	Equally to Education and Research	n/a		
	Engagement (3 rd Mission)	n/a		
				<p>Part of the public funding is allocated on the basis of a three-year contract, to which a performance agreement, renewable each year, is attached.</p> <p>This contractual negotiation process allows HEIs to decide on the emphasis they wish to place on certain fields/study programmes and places, in order to focus more output and performance.</p> <p>According to the Higher Education Act, the performance agreement should cover:</p>

	Other	n/a	<p>“ 1) main obligations of the university in connection with the scope, quality and effectiveness of the organisation of studies at the level of higher education, including the fields of responsibility of the university and the goals and objectives of the activity support and targeted support;</p> <p>2) the exceptions to the university’s right to demand that a student compensate for their study expenses;</p> <p>3) the study programmes based on which the university is allowed to organise only part-time studies;</p> <p>4) the bases of calculation of the doctoral student support fund;</p> <p>5) the bases of allocation of the student scholarship fund;</p> <p>6) the conditions of allocation of other funds, where necessary;</p> <p>7) the form of reporting.”</p> <p>Neither the Act nor performance funding-focused annex specify any quantitative criteria. Instead, the annex states that the part of performance funding that is allocated based on the agreement is determined via qualitative evaluation of fulfilling the previous agreement. The maximum allocated amount is tied to the total funds assigned for the agreement-based funding and the particular HEI’s (historical) share of it.</p> <p>The representative of the Ministry of Education further explained the qualitative evaluation process of the agreement:</p> <ul style="list-style-type: none"> - Goals set in the agreement are evaluated as either partially or fully achieved partially - The maximum funds are allocated in case all goals are fully achieved. - In case the goals are achieved partially, the amount is reduced, based on the qualitative evaluation, but also taking into consideration data from the institution’s annual reports and other relevant sources - The evaluation given in the end of the contractual period applies for the full length of the next contractual period. <p>It was also noted in the interview that this type of qualitative evaluation is rather complicated for the ministry. In case the contractual goals are evaluated as partially achieved, the main difficulty lies in fair evaluation of the amount to be reduced from the maximum – determining the extent of the deficiencies fairly.</p> <p>Sources:</p> <p>Higher Education Act (2019). RT I, 19.03.2019. (see here)</p>
--	-------	-----	---

3.b. Parties involved in the contract negotiation and time frame	Comments and references	<p>Source: Higher Education Act. (see here)</p>
<p>Minister of Education and Research and each University. Funding agreements are agreed on for each year, whereas the administrative contract, the funding agreement is attached to, are cover a period of 3-5 years.</p>		Comments and references
3.c. Rationale of the funding authorities for using a funding contract/agreement	Comments and references	
<p>The rationale was to increase stability of funding; increase attention quality, efficiency, and role in society by applying performance funding and to introduce the component for strategic choices in funding.</p>		Comments and references
3.d. Degree to which the HEI can decide on the choice of performance targets and associated indicators	Comments and references	
<p>The performance agreements consist of obligations arising from the mission, objectives and functions of the particular HEI and needs of the state. It includes programmes where the HEI is not allowed to ask tuition fees; programmes where the HEI is allowed to conduct only part-time study (i.e., ask tuition fees); and the number of student places in Doctoral study which the university is required to open. Therefore, there seems to be certain flexibility.</p>		

A1.10.4 Other funding systems

4.a. System in place if there is no formula or contract	N/A	Comments and references	<p>The historical part of core funding which makes up 80% of public funding is calculated, taking into account the core funding ('activity support') allocated to the institutions in the last three years and the total activity support allocated to all HEIs in the same period. The interviewed representative of the Ministry of Education and Research specified that this historical 80% of the public funding is calculated, using the moving average of the previous three years' activity support.</p> <p>The Minister can also modify the institution's proportion, taking into account the targeted support allocated the institutions and changes in the structure or size of the institution. Ministry representative specified in the interview that additional reasons for changes in this allocation also include a significant change in the number of students, in case of different institutions merging. Moreover, targeted support is taken into consideration, e.g., in case the nature of activities/responsibilities previously funded from targeted support become more permanent. In practice, the only recent changes in universities historical coefficients have been implemented due to</p> <ol style="list-style-type: none"> 1) institutions merging; 2) after allocating targeted funding for increasing nurse training capacity for three consecutive years, the institution's historical coefficient was increased respectively <p>Sources: <i>Higher Education Act (2019)</i>. (see here) <i>Interview with the representative of the Higher Education department at the Ministry of Education and Research, 19 May 2021.</i></p>
--	-----	--------------------------------	---

A1.10.5 General information on PBF

5.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references	<p>Source:</p> <p><i>Estonian quality agency, p. 8.</i> (see here)</p> <p><i>Ministry of education and research of Estonia (n/a) 'HE in Estonia, lessons learnt', slide 14.</i> (see here)</p>
Exact	Up to 17% allocated based on quantitatively evaluated performance criteria + 3% allocated based on a qualitative evaluation of the previous performance agreement.		
Estimate	n/a		

5.b. Evolution of performance orientation in core funding system since 2010				Comments and references
Increased	Remained the same	Decreased	Don't know	
√				

A1.10.6 Data collection and performance monitoring

6.a. Data collection mechanisms tied to the performance-based funding system	Comments and references
N/A	

<p>6.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Comments and references</p>	<p>Source: <i>Specifications and the relative importance of performance indicators considered in performance funding, the calculation principles of performance funding and the share of performance pay of doctoral studies. (Tulemusrahastamise arvesse võetavate tulemusnäitajate täpsustused, nende osakaalud ja tulemusrahastamise arvestamise alused ning doktoriõppe tulemustasu määr ja arvutamise kord), RT I, 29.08.2019, 1. (see here)</i></p>
<p>Quality indicators:</p> <p>Share of students who graduated within nominal timeframe (in all admitted students) - 35%</p> <p>Share of students admitted to fields that have been assigned to the particular university in the funding contract as their fields of focus (out of all admitted students) - 15%;</p> <p>Share of students who have studied or completed an internship abroad (out of all students) – 10%</p> <p>Share of international graduates among all graduates – 10%</p> <p>Proportion of HEI's income generated by educational activities, compared to core funding allocated the the HEI – 10%</p>		
<p>6.c. Qualitative performance indicators reported by HEIs to the government in the context of the performance-based funding system</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Comments and references</p>	<p>According to the Higher Education Act, the performance agreement should cover:</p> <ol style="list-style-type: none"> 1) main obligations of the university in connection with the scope, quality and effectiveness of the organisation of studies at the level of higher education, including the fields of responsibility of the university and the goals and objectives of the activity support and targeted support; 2) the exceptions to the university's right to demand that a student compensate for their study expenses; 3) the study programmes based on which the university is allowed to organise only part-time studies; 4) the bases of calculation of the doctoral student support fund; 5) the bases of allocation of the student scholarship fund; 6) the conditions of allocation of other funds, where necessary; 7) the form of reporting.” <p>Source: <i>Higher Education Act.</i> (see here)</p>
<p>Part of the public funding is allocated on the basis of a three-year contract which has a performance agreement attached to it. Qualitative performance information depends on the particular HEI's performance agreement.</p>		

A1.10.7 Any other comment

Three interviews for additional data collection:

- Interview with the representative of the Higher Education department at the Ministry of Education and Research, 19 May 2021.
- Interview with a coordinator of a European University Alliance at the University of Tartu, 21 June 2021

Interview with the Head of International Cooperation at the University of Tartu, 21 June 2021

A1.11 Finland

A1.11.1 Context

1.a. Country name – Finland	Finland has a binary system of higher education: 13 universities and 23 universities of applied sciences (UAS), publicly funded by the Ministry of Education and Culture (MoEC). Two of the universities are foundations, governed by the Foundations Act, while the rest are corporations under public law.
1.b. Higher education sub-sector	<p>There are also the National Defense College operating under the Defense Administration, the Åland University of Applied Sciences under the autonomous regional government of the Åland Islands, and the Police University College under the Ministry of the Interior.</p> <p>This template focuses on the HEIs operating under the MoEC.</p>

1.b. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2010 (or closest year available)	Universities: 65% UAS: ~80%	Universities: 0% UAS: 0%	Universities: 35% UAS: ~20%	100%	

2020	Universities: ~65% UAS: ~79%	Universities: 0% UAS: 0%	Universities: ~35% UAS: 19%	100%	<p>Universities of Applied Science (UAS):</p> <p><i>Source: 2010 (Figures are estimation provides during the MoEC interview);</i></p> <p><i>2020 (MoEC interview: The UAS state funding excluding competitive funding from public sources: 79% in 2021. On average 80% of UAS funding comes from the MoEC, and the rest from external sources)</i></p> <p><i>About ETER data (2019): Data based on 36 universities and UAS. Data missing for 3 HEIs.</i></p>
2019 (ETER)	75%	NA	25%		

1.c. Share of funding mechanism type			Comments and references
<p><i>Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)</i></p>			
	Funding formula	Funding contract	
Share in 2010 (or closest year available)	Universities: √√√ UAS: √√√√	Universities: √√ UAS: √	<p>Universities:</p> <p>In 2010, for universities, the share of the formula funding was 75%. Part of this was based on targeted degrees. Funding outside the formula was also partially tied to indicators. Since January 2021, the share of the performance-based funding amounts to 76%, based on the calculated indicator-based formula.</p> <p>Direct comparison of changes in shares over time- the models in 2010 and 2020 - is not useful in the Finnish context because the entire funding models and principles have changed.</p>

<p>Current share (in 2020 or most recent year)</p>	<p>Universities: √√√ UAS: √√√√</p>	<p>Universities: √√ UAS: √</p>	<p>The funding allocation is based on a closed envelope competitive system within the sector.</p> <p>Source: MoEC interview and MINEDU (see here)</p> <p>Universities of Applied Science (UAS):</p> <p>For UAS the proportion of formula-based funding remained the same in 2010 and 2021: 95%. However, the 2010 model was completely different and mostly based on student numbers. These are not included in the current model which uses a calculated indicator-based formula. Comparing the models in 2010 and 2020 is not useful because of the entire funding model and principles have changed</p> <p>The funding allocation is based on a closed envelope competitive system within the sector.</p> <p>Source: : MoEC interview and MINEDU (see here)</p>
--	---	---	---

A1.11.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission.	Education	Research	Engagement (3 rd Mission)	Comments and references	
	Universities				<p>The university core funding is based on 3 pillars.</p> <p>The first pillar – Education - accounts for 42% of funding for universities. Bachelor’s and Master’s degrees account for 30% of the total funding, 11% and 19% accordingly. Coefficients include: graduation times, multiple similar degrees, discipline fields of education. For Master’s degrees, funding is provided up to the target, defined in the performance agreement negotiations.</p> <p>Other indicators in the education pillar have much lower weight ranging from 3 to 5 % of the total funding: ‘Continuous learning’ accounts for 5%, incl. 1% for ECTS based on co-operation. ‘The number of employed graduates and the quality of employment (based on graduate tracking) accounts for 4% of funding, and ‘student feedback’ 3%.</p> <p>The second pillar - Research - accounts for 34% of universities’ block funding, consisting of scientific publications (14%), competitive research funding (incl. international competitive funding) (12%), and Ph.D. degrees (8%).</p> <p>The remaining part - 24% - for ‘ Other education and science policy considerations’ is based on negotiations, covering ‘strategic development’ (15%) and ‘national duties’ (9%).</p> <p><i>Source: for 2021 data (see here)</i></p>
	<ol style="list-style-type: none"> 1. Master’s degrees 2. Bachelor’s degrees 3. Continuous learning 4. Number of employed graduates and quality of employment 5. Student feedback 	<ol style="list-style-type: none"> 1. Scientific publications 2. Competitive research funding 3. Ph.D. degrees 	<ol style="list-style-type: none"> 1. ECTS based on cooperation 	<p>The UAS core funding is based on 3 pillars:</p>	
Universities of Applied Sciences					

2.b. Indicators mentioned	1. Bachelor's degrees	2. Continuous learning (ECTS)	3. Number of employed graduates (statistical data) and quality of employment (graduate tracking)	4. Student feedback	5. Degrees in vocational teacher training	1. External R&D funding	2. Master's degrees	3. Publications, public art and design activities, audiovisual material, and ICT software	1. ECTS based on collaboration	<p>The first pillar – Education – accounts for over 2/3 of funding (76%), bachelor's degrees which account for 56% of the block funding and 9% for continuous learning (including 1% for ECTS based on cooperation). The remaining elements are much smaller: 6% for number of employed graduates and quality of employment, 3% for student feedback, and 2% for degrees in vocational teacher training.</p> <p>The second pillar - Research and Development - accounts for 19% of the UAS block funding, much less than in universities: this comprises 11% for external R&D funding, 6% for Master's degrees, and 2% for publications, public art and design activities, audio visual material and ICT software (the coefficient for open publications 1.2).</p> <p>The third pillar of the UAS funding amounts to 5% for 'Other education and science policy considerations. This is funding for strategic development based on performance negotiations.</p> <p><i>Source: for 2021 data (see here)</i></p>
	<p>The two models - one for the UAS and one for the universities - follow the same logic of three pillars: funding for education, research (and development for the UAS) and other education and science policy / R&D aims (for the UAS).</p> <p>Due to the different tasks of the two sectors, the formulas differ in their emphasis of the calculation criteria based on the performance of education and research tasks and partly also in the contents of the calculation criteria. Consequently, the weights for education and research are different for universities (42%, 34%) and UAS (76%, 19%). For Master's and Bachelor's degrees, coefficients are applied for the graduation times, multiple similar degrees, fields of education.</p> <p>There is no fixed part of the funding, but as the formula funding utilizes 3-year averages for indicators, it provides a stable and predictable basic funding for HEIs where large fluctuations are avoided on the institutional level in the number of outputs (e.g., degrees).</p>									
Education		Research			Engagement (3 rd Mission)			Comments and references		
Universities										

	1. Master's degrees 2. Bachelor's degrees 3. Continuous learning 4. Number of employed graduates and quality of employment 5. Student feedback	1. Scientific publications 2. Competitive research funding 3. Ph.D. degrees	1. ECTS based on cooperation	In the survey, the Ministry listed all output-based indicators as performance indicators.
	Universities of Applied Sciences			
	1. Bachelor's degrees 2. Continuous learning (ECTS) 3. Number of employed graduates (statistical data) and quality of employment (graduate tracking) 4. Student feedback 5. Degrees in vocational teacher training	1. External R&D funding 2. Master's degrees 3. Publications, public art and design activities, audiovisual material, and ICT software	1. ECTS based on collaboration	

A1.11.3 Funding agreements/contracts

3.a. Main criteria used in the funding contract/agreement ranked by importance sorted by mission	Education	Research	Other	Comments and references
	Universities			
1. National education policy objectives	1. National science policy objectives	1. Institutional strategy 2. Implementation of the institutional strategy 3. Profiling 4. Internationalisation		

	Universities of Applied Sciences			The 2021 UAS funding model. <i>Source: see here</i>
	1. National education policy objectives	1. National R&D objectives	1. Institutional Strategy 2. Implementation of the institutional strategy 3. Profiling 4. Internationalisation	
3.b Criteria classified as performance criteria	<p>In addition to the two pillars of the formula-based funding outlined in Section 2, the remaining third pillar of core funding, 24% for Universities and 7% for UAS, is dedicated to 'Policy objectives in education and science policy (for universities) or 'Policy objectives in education and R&D' (for UAS). This is strategic funding agreed at the performance agreement negotiations.</p> <p>For universities, the share which is based on performance agreement (24%) consists of strategic development (15%), and national duties (9%). While some of the national duties are 'historic' in nature, they are all agreed in the performance agreements and therefore reported as performance-based funding. (<i>Source: MoEC interview</i>)</p> <p>The strategic funding is added to the institution's formula-based funding – it is a block grant.</p>			
	Education	Research	Engagement (3 rd Mission)	Comments and references
	Universities			<p>The criteria are related to institutional strategy and education and research quality, not on the output (outcome or impact). They can be perceived as performance criteria, because the failure to meet the plans may lead to financial consequences for the HEI.</p> <p>The mid-term evaluation of the performance agreements may lead to a reduction of the second part of the allocation of the funds. The institutions are given time and support to reach their goals. And they are expected to use the results of the mid-term evaluation (the next one foreseen for 2022/2023) to re-assess their strategy.</p>
	1. National education policy objectives	1. National science policy objectives	1. Institutional Strategy 2. Implementation of the institutional strategy 3. Profiling 4. Internationalisation	
Universities of Applied Sciences				

	1. National education policy objectives	1. National R&D objectives	1. Institutional Strategy 2. Implementation of the institutional strategy 3. Profiling 4. Internationalisation	Quantitative indicators can play a role in the assessments; their role is determined by the HEI and the Ministry during the negotiations.
--	---	----------------------------	---	---

3.e. Funding criteria in the contracts linked to the goal of internationalisation	Education-related internationalisation criteria	N/A	Comments and references	<p>In the 2021 formula funding model, international activities are part of the strategic funding and the starting point for HEIs' institutional development work in line with the vision for HE and research in 2030 which is to improve the HEIs' opportunities for international cooperation and interaction and to connect HEIs with the top global networks. HEIs are encouraged to enhance and embed internationalisation in all tasks, operations, and activities in line with their own goals. HEIs can in their own strategy work stress different aspects of internationalization; these aspects can be monitored, and indicators can be set for the specific forms that the HEI considers important.</p> <p>Source: OKM (2018). <i>Luovuutta, dynamiikkaa ja toimintamahdollisuuksia. Ehdotus ammattikorkeakoulujen ja yliopistojen rahoitusmalleiksi vuodesta 2021 alkaen. Opetus- ja kulttuuriministeriön julkaisu 2018:35. Opetus- ja kulttuuriministeriö (see here)</i></p>
	Research-related internationalisation criteria	N/A		
	Internationalisation criteria that are equally related to education and research	N/A		
	Engagement (3 rd mission, entrepreneurship, etc.) -related internationalisation criteria	N/A		

3.f. Parties involved in the contracts negotiation and time frame

The institutions and the Ministry hold negotiations at the start of each four-year agreement period, covering: common objectives for the HE system, key measures for each institution, the tasks, profile, core areas and newly emerging scientific fields in each institution, degree objectives as well as the appropriations allocated on the basis of these. The agreement also specifies how the outcomes of the objectives will be reported on. ([see here](#))

The strategic work of HEIs is supported by a broad-based joint dialogue with HEIs and stakeholders. The unified strategy period of HEIs and the opportunity to see each other's strategy materials are also expected to improve the transparency of strategic funding. (The co-development process for the promotion of lifelong learning in HEIs in 2018 was used as a pilot for the interactive process aimed at strengthening the HEIs' own strategy work and more open dialogue between HEIs, stakeholders, and the ministry.)

Source: OKM (2018). Luovuutta, dynamiikkaa ja toimintamahdollisuuksia. Ehdotus ammattikorkeakoulujen ja yliopistojen rahoitusmalleiksi vuodesta 2021 alkaen. Opetus- ja kulttuuriministeriön julkaisu 2018:35. Opetus- ja kulttuuriministeriö. ([see here](#))

3.g. Rationale of the funding authorities for using a funding contract/agreement

To improve the quality, impact, and productivity of the higher education institutions. ([see here](#))

For ongoing funding period:

To agree on the direction and focus areas of education and research.

To improve the quality of education in HEIs

To enhance institutional profiling and differentiation between HEIs; encourage HEIs to develop and exhibit clearer profiles.

To strengthen the internationalization of HEIs

3.h. Degree to which the HEI can decide on the choice of performance targets and associated indicators

There are no specific performance targets and associated indicators. HEIs can in their own strategy work stress different approaches and activities, for instance aspects of internationalization; these aspects can be monitored; and indicators can be set for the specific forms that the HEI considers important.

Source: OKM (2018). Luovuutta, dynamiikkaa ja toimintamahdollisuuksia. Ehdotus ammattikorkeakoulujen ja yliopistojen rahoitusmalleiksi vuodesta 2021 alkaen. Opetus- ja kulttuuriministeriön julkaisu 2018:35. Opetus- ja kulttuuriministeriö. ([see here](#))

A1.11.4 General information on PBF

5.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references
Exact	76% for research universities 95% for universities of applied science	<i>For Universities see here.</i> <i>For Universities of Applied Sciences see here.</i>

A1.11.5 Data collection and performance monitoring

6.a. Data collection mechanisms tied to the performance-based funding system	<p>Data is collected from multiple sources. There is direct data collection by the ministry from the HEIs, data derived from the joint data warehouse of HEIs (VIRTA), and data from Statistics Finland.</p> <p>HEIs provide relevant information to the central reporting portal, Vipunen. This online database enables the Ministry to produce an annual written feedback report. All the indicators for funding are publicly available on Vipunen. Ministry requires HEIs to report yearly on how they have achieved their agreed goals. Based on this reporting, the ministry monitors the economic situation and performance of the HEIs.</p> <p>Data is updated once a year. (Interview with MoEC: “Data is gradually updated meaning that when we have a new yearly data on specific elements it is published in the database. Most of the data from the previous year is updated during the spring.)</p>	Comments and references	<p>Data is publicly available in the open statistical database here (also in English here but more data on Finnish).</p> <p><i>Source: Survey, Interview MoEC.</i></p>
6.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system	Comments and references	<p><i>Source: Survey</i></p> <p>Note: Regarding the performance agreements following indicators are agreed: For Universities: agreed on targets on MSc by field of education and BSc and Ph.D. at the</p>	

<p>In the Finnish PBF system, quantitative data is derived from the HEIs' joint data warehouse and from Statistics Finland.</p>		<p>university level. For UAS: BSc targets by the field of education and MSc on UAS level target.</p>
---	--	--

<p>6.c. Qualitative performance information reported by HEIs to the government in the context of the performance-based funding system</p>	<p>Comments and references</p>	<p>Source: Interview MoEC</p>
<p>Under strategic development, HEIs report about their institutional strategy development, its implementation, profiling, and internationalisation. They also report about the national education and science policy aims (for universities) or R&D aims (for UAS).</p>		

<p>6.d. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system</p>	<p>Comments and references</p>	<p>The evaluation of the university reform 2010 and the UAS reform 2014-2015 shows that the performance-based funding model increased the HEIs' reporting responsibilities vis a vis the Ministry. Both universities and UAS perceived that the volume of and details in reporting increased. See Korkeakoulu-uudistusten vaikutusten arviointi (Evaluation of the impacts of higher education reforms). Publications of the Ministry of Education and Culture (see here)</p> <p>Source: Survey and MoEC interview (The transaction costs of the output-based formula funding, are moderate, given the sophisticated data collection mechanisms. The HEIs' data goes to a data warehouse [Virta-tietovarasto], and the data collection is automated. The performance agreements and the related negotiations are however more labour intensive. Negotiations are carried out every 4 years and involve mid-term evaluations to check the progress.)</p>
<p>Moderate administrative burden. Most data is information that the HEIS need and collect for their own purposes</p>		

A1.12 France

A1.12.1 Context

1.a. Country name - France	This template deals with public universities (note: France also subsidised private universities).
1.b. Higher education sub-sector	France also has <i>Grandes Ecoles</i> , specialised Schools, and high schools also have higher education tracks. These are not addressed here.

1.c. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other fees	3 rd party funds	Total	
2010 (or closest year available)	87%	5%	8%	100%	
2020 (ICF/CHEPS survey) 2019 (ETER)	~88% 88%	NA 3%	NA 5%	100% 96%	

For 2010, data from CHEPS 2008 report (Progress in higher education reform across Europe, Funding reform, Volume 1: Executive Summary and main report)

For 2020: from interview Conference of University Presidents (*Conférence des Présidents des Universités, CPU*), no exact date. 88 % include some funds from the regions (about 7%) the rest is state funds.

About the ETER data for France: Data is based on 89 HEIs. Data is missing for most of the engineering schools and private institutions. For some (26) institutions, total revenues are available, but breakdowns are not provided. Those were excluded here.

1.d. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined/incremental)	
				<p>In 2010, the performance-based funding system (<i>Système de répartition des Moyens à la Performance et à l'Activité - SYMPA</i>) used a formula to distribute some of the funding credits and university jobs between universities. However, the total payroll was not included and was still historically calculated.</p> <p>The estimations here for 2010 stem from two sources:</p> <p><i>L'université française : une nouvelle autonomie, un nouveau management</i> (book excerpt sent by CPU interviewee)</p>

Share in 2010 (or closest year available)	√√		√√√		“Note d’information aux membres du Conseil national supérieur de l’Enseignement supérieur et de la Recherche, en date du 17 décembre 2012” No such system perdured to 2020. In 2020, all core funding and jobs are decided historically.
Current share (in 2020 or most recent year)			√√√√		

A1.12.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission	N/A	Comments and references	The survey makes reference to a formula including staffing and student numbers, but section 4 indicates core funds are based on historical reasons and determined in an incremental fashion. Since this is what the CPU interview also uncovered, section 4 below (‘other funding systems’) provides additional details.
---	-----	-------------------------	--

A1.12.3 Funding agreements/contracts

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">3.a. Main criteria used in the funding contract/agreement ranked by importance sorted by mission</p>	<p>N/A</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Comments and references</p> <p>France has contracts but not linked to core funding (source: email exchange with CPU interviewee).</p> <p>The “contrat de site” (site contract) are established for 5 years between groups of HEIs and the State. The aim of the contract is to promote a strategic dialogue between the State and HEIs, taking into account their management autonomy, but also better calibrating budgets. These contracts include monitored performance objectives (not chosen by the institution) regarding:</p> <ul style="list-style-type: none"> Success rates in education PhD success rate Evaluation of training and teaching Development of own resources Management of IT system Occupancy rate of premises Evolution of real estate surfaces Management of digital development Human resources Sustainable development approach Professional integration Presence of site in PCRI/H2020 projects funded by the EU International relations <p>The survey reports that it improved access, inclusion, efficiency, internationalisation (in education and research), and entrepreneurial activities.</p> <p>Initially, the contracts included some funding and were tied to the funding of jobs in a second phase, but since 2018 they haven't been tied to funding (source: <i>interview CPU</i> + https://www.senat.fr/rap/r19-130/r19-130_mono.html#toc66)</p> <p>In 2018, the Ministry initiated an experiment with voluntary HEIs to develop annual dialogs over management (“dialogues stratégiques et de gestion”). They were generalized in 2019. In addition to HEIs, research organisations, local authorities, and other partners of the establishments are associated. For now, these are linked to project funding (an envelope of 30 million euros for projects tied to research or training), not core funding.</p>
---	------------	--

A1.12.4 Other funding systems

4.a. System in place if there is no formula or contract	<p>The core funding of universities in France is based on historical reasons and incremental. It includes two main budget lines: staffing and operations.</p> <p>The State pays for the total payroll (salaries, compensation and benefits) for all staff at universities, as they are civil servants. This is called the “masse salariale” and is fully covered by the State (except for the glissement vieillesse technicité, which has been the heart of a debate for a long time).</p> <p>Financing is also given to universities for operations (and a small share for real estate): it is historical (not indexed to inflation).</p>	Comments and references	<p><i>From interview CPU.</i></p> <p>See also here.</p> <p>NB: The glissement vieillesse technicité [Wage drift – Seniority and Skills] explains the changes in ‘masse salariale’ when the number of civil servants does not change, because of the natural evolution of a career as civil servant (automatic increases of salary on the salary scales, changes in salaries due to promotions or exam).</p> <p>Outside of the core funding realm, France finances reforms, on a case-by-case basis for each university, and after a discussion between the Government and the said university (but it is not considered a negotiation). France also does a lot of project financing (e.g. Operation Campus)</p>
--	--	--------------------------------	---

4.b. Inclusion of performance-related elements	No	Comments and references	<p>In 2020, all performance-related funding in France is additional/project funding, not core funding.</p> <p><i>From interview CPU</i></p>
---	----	--------------------------------	---

4.c. Criteria in the funding system linked to the goal of internationalisation in higher education	Education-related internationalisation criteria	Research-related internationalisation criteria	Internationalisation criteria that are equally related to education and research	Engagement (3 rd mission, entrepreneurship, etc.) -related internationalisation criteria	Comments and references	There is no dedicated funding for internationalisation in France’s core funding.
	No	No	No	No		

A1.12.5 General information on PBF

5.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references
Exact	0%	
Estimate		

There is currently no performance-related core funding in France
 From interview CPU

5.b. Evolution of performance orientation in core funding system since 2010				Comments and references
Increased	Remained the same	Decreased	Don't know	
		√		

For a short time around 2010, France had some performance-based core funding (most notably a formula with SYMPA), which is no longer true in 2020.
 From interview CPU

The survey indicated an increase but mentioning project funding. Project funding related to performance has indeed increased in France, but not core funding.

A1.12.6 Data collection and performance monitoring

6.a. Data collection mechanisms tied to the performance-based funding system	Comments and references	No performance-based funding in France for the core funding. There is, however, as mentioned above, annual reporting not tied to funding.
N/A		<p>In the framework of site contracts, an evaluation is carried out by the High Council for Evaluation of Research and Higher Education (HCERES) which is based on a self-evaluation carried out by the HEIs themselves. This evaluation focuses in particular on the performance of research and the quality of training, but also on the governance and management of establishments and territorial coordination. (source: survey)</p> <p>See here for 2020.</p>

6.b. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system	Comments and references	
N/A		As mentioned before, the administrative burden tied to contracts is seen as high, but again this is no longer tied to core funding.

A1.12.7 Any other comment

<p>This template was filled using:</p> <ul style="list-style-type: none"> Desk research (indicated in sources when relevant) An interview with a contact person from the Conference of University Presidents (above interview CPU). Interview conducted on May 18th + email on June 3^d (following some questions on contracts) An interview with a contact person from the European and International Affairs delegation within the Department of European Strategies for Higher Education and Research, Ministry of Higher Education, Research and Innovation (above interview European Affairs). Interview conducted on May 20th. The ICF/CHEPS survey

A1.13 Germany – Berlin

A1.13.1 Context

1.a. Country name – Germany Belin	Berlin has a rich landscape of 38 higher education institutions. These include two HEIs that are run by the church, 11 public HEIs, and 25 private and state authorised HEIs. In the following, this report will describe the funding regulation for the 11 public HEIs.
1.b. Higher education sub-sector	Public HEIs can be distinguished as universities, universities of applied sciences (Fachhochschulen), and HEIs that have a hybrid status, i.e. some parts function as universities, others as universities of applied science (see Berliner Hochschulgesetz). Hence, the Berlin HE system can be thus classified as a binary system. In more detail, there are four universities, and four universities of applied science. Three institutes of performing arts can be classified as hybrids. The Charité has special regulations and is not part of the Berliner Hochschulschulgesetz.

1.c. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other fees	3 rd party funds	Total	
2010 (or closest year available)	60%	1.5%	23%	100%	
2010 (Destatis)	44%	3%	53%		
2020 (or most recent year)	62%	1.6%	23%	87%	
2019 (Destatis)	42%	3%	53%	100%	

Note: The percentages do not sum up to 100%.

In 2010, HEIs generated 14% of their incomes from other sources, such as patient care, etc. Also, 1.5% of the income came from collaborative funding of the Federal level with the Länder (according to Art. 91b GG)

In 2018 (refers to 2020 or the most recent year), the HEI generated 11% of their income, and 2.2% came from collaborative funding.

Source: [see here](#)

Destatis refers to the German Statistical Agency (Statistisches Bundesamt). The DESTATIS data for core funding refer to Trägermittel. Third Party funding refers to Verwaltungseinnahmen and Drittmittel.

1.d. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined/incremental)	
Share in 2010 (or closest year available)	√√√	√√	Share in 2010 (or closest year available)	
Current share (in 2020 or most recent year)	√√√	√√	Current share (in 2020 or most recent year)	

The percentage for “other” refers to “Sockelfinanzierung” (base funding). These funds do not relate to any performance indicator. The amount for the funding contract was reduced as experience has shown that the amount for fundamental is not covering all these expenses well. Therefore, for the current funding period, the percentage for non-performance-related funding was increased to 45% at minimum.

A1.13.2 Funding Formula

2.a. Main criteria used in the funding contract/agreement ranked by	Education	Research	Other	Comments and references
	1. Number of students in the standard study period. (rates per student differ for disciplinary clusters and type of higher education institution)	1. Funds spent from 3rd party funding 2. Funds spent from DFG and EU funding (on top of indicator no. 1) 3. Number of fellowships and prizes from the AvH	1. Number of newly appointed female full professors (W2/W3) in disciplinary areas where the percentage of female full professors is below 50% 2. Number of female full professors in areas where the percentage of female full professors is below 50%	

The performance contracts are based on contract partners agreement on quantitative targets that need to be achieved at the end of the funding period. The performance budget is oriented towards these targets and aims to support their achievement. In case, targets are not achieved, the budget can be reduced in the next funding period. HEIs can reduce their malus if they exceed the agreed performance for other indicators from the same mission area.

The importance of the indicators cannot be determined. The listing in the table copies the listing in the documents consulted for this report ([see here](#)).

The funding contract foresees predefined amounts for each unit mentioned by the criteria. For example, in Education, for each student, the HEI receives a certain amount to fund the costs of educating the students. The tariffs differ across disciplinary clusters and types of HEIs. The tariffs are determined during the negotiations of the performance contracts. In the

	2. Number of completed degrees weighted by type of degree 3. additional funds for completed degrees in teacher education	4. Number of ERC Grants, AvH professors, Leibniz prizes 5. Number of collaborative PhDs (collaboration of universities and UAS located in Berlin) 6. Only for Universities of Applied Sciences: Number of publications 7. Only for Universities of Applied Sciences: Number of regional cooperations	3. number of all other types of female professors in areas where their percentage is below 50% 4. Number of students within the standard period of study with higher education entrance qualification for Vocationally qualified (without Abitur) 5. Number of male students within the standard period of study in primary school education and in the study programme “Childhood Education” 6. Part-time BA degree programmes (online, distance learning, evening study), per degree programme	negotiations, the HEIs estimate the total budget needed for the task related to the indicator, and the maximum value it would like to achieve in this task. For example, the HEIs estimate a maximum number of students in the standard study period and the budget needed to host them. From these figures, the final tariff per student is calculated, taking disciplinary characteristics into account. A potential malus is calculated with the help of these tariffs. The weighting of the number of completed degrees considers the efforts spent on supervision. Research: The unit is 1000 € of third-party funding spent on research activities. i.e. for each 1000€, the HEIs receive 500€ of funding. For DFG and EU third-party funding, the HEI receives 100€ in addition. AvH refers to Alexander-von-Humboldt-Stiftung and the related fellowships, professors, and prizes. <i>Source: List of indicators developed from Hochschulverträge 2018-2023 (see here) and Kommission der Gutacher und Gutachterinnen: Evaluation der Hochschulverträge in Berlin. Gutachten 04.05.2021 (see here)</i>
2.b Criteria classified as performance criteria	Education		Research	Comments and references From the perspective of the HEIs, the indicators listed below are to a lesser extent performance-oriented. (According to university representative) <ul style="list-style-type: none"> • Number of fellowships and prizes from the AvH • Number of ERC Grants, AvH professors, Leibniz prizes
	1. Number of students in the standard study period. (Rates per student differ for disciplinary clusters and type of higher education institution) 2. Number of completed degrees weighted by type of degree 3. Additional funds for completed degrees in teacher education	1. Funds spent from 3rd party funding 2. Funds spent from DFG and EU funding (on top of indicator no. 1) 3. Only for Universities of Applied Sciences: Number of publications 4. Number of fellowships and prizes from the AvH 5. Number of ERC Grants, AvH professors, Leibniz prizes		

2.c. Parties involved in the contracts negotiation and time frame

The institutional leadership of the HEI and responsible representatives of the Berlin Senat. Currently, the funding period is five years. The former contract covered shorter periods, e.g. up to three years. Most of the negotiations are held in plenary settings, i.e. all HEIs are represented. There are also bilateral negotiations or rounds on selected topics.

2.d. Rationale of the funding authorities for using a funding contract/agreement

The performance contracts are built on the principle: “The money follows the student.” The focus is still on incentivizing the institutions (though the share for non-performance funding has been increased in the recent period). The incentive mostly comes from the malus system which can cause a reduction of the performance-related budget. The system aims to avoid misincentives by defining upper limits for the performance: if HEIs exceed the performance targets they do not receive additional funding but the agreed maximum amount.

2.e. Degree to which the HEI can decide on the choice of performance targets and associated indicators

In the contracts, all performance targets and areas must be considered.

Comments and references

The recent evaluation report criticizes this obligation that HEIs must address all performance targets as micro-steering/management.

Source: See: *Kommission der Gutacher und Gutachterinnen: Evaluation der Hochschulverträge in Berlin. Gutachten* ([see here](#))

A1.13.3 General information on PBF

3.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria

Estimate

45 – 55%

Comments and references

The estimate considers the funding provided to the HEIs provided by Land Berlin. Funding from other sources, in particular, the funding from the federal level is not considered in the calculation. The current HE Law prescribes that HEI receive a base funding of 45% at minimum. The base funding covers all costs that are not related to the HEI's performance (such as maintenance or specific facilities). Interviewees mention that in the current contract period, the bandwidth is 47 to 55% of base funding.

3.b. Evolution of performance orientation in core funding system since 2010

Increased

Remained the same

Decreased

Don't know

√

Comments and references

The amount has decreased from 66% to 45% (approximately) as it turned out that the base funding provided in former periods hardly covers the costs to guarantee the functioning of the HEIs.

A1.13.4 Data collection and performance monitoring

4.a. Data collection mechanisms tied to the performance-based funding system	
<p>Most indicators can be concluded from the statistical data that the HEIs collect according to the Hochschulstatistik Gesetz. HEIs are obliged to report annually on their achievements/performances. These numbers are also used for the annual budgets.</p>	
4.b. <u>Quantitative</u> performance indicators reported by HEIs to the government in the context of the performance-based funding system	
<p>All indicators mentioned in Section 3.a. are quantitative indicators.</p>	
4.c. <u>Qualitative</u> performance information reported by HEIs to the government in the context of the performance-based funding system	Comments and references There are no financial consequences if HEIs fail to achieve the qualitative targets. Instead, they need to analyse why the agreement was not achieved and to adapt their plan accordingly.
<p>The HEIs have to shortly report to what extent they have achieved qualitative goals as agreed in the Performance contracts.</p>	
4.d. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system	
<p>The University representatives mention a high administrative burden, due to the detailed additional documents that have to be produced as attachments to the Performance contract. The Ministry representative does not share these positions.</p>	

A1.14 Germany – Lower Saxony

A1.14.1 Context

1.a. Country name – Germany	
1.b. Region – Lower-Saxony (Niedersachsen)	
1.c. Higher education sub-sector	

Lower-Saxony has a binary higher education system, consisting of research universities, art colleges (considered as universities), universities of applied sciences, and professional academies (*Berufsakademien*). According to the Ministry of Science and Culture, in 2019, there were 29 higher education institutions, from which 21 were under public responsibility. Among these were 11 research universities, two art colleges, and seven universities of applied sciences. *(Note: these sums up to 20 – although this discrepancy is not explained in the source)*

The template will present information on the publicly funded universities and Universities of Applied Sciences (UAS).

1.c. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2010 (or closest year available)	50%	37%	13%	100%	
2010 (Destatis)	54%	4%	42%		
2019 (or most recent year)	54%	30%	16%	100%	
2019 (Destatis)	54%	1%	45%		

The most recent percentages refer to the year 2019.

The tuition fees are included in the Verwaltungseinnahmen (administrative income). They amount to 4% in 2010 and 1% in 2019. The administrative income includes any kind of income, except for “Drittmittel” which refers to research funding provided by 3rd parties. The percentage for Drittmittel is mentioned as third-party funds.

Source:
Statistisches Bundesamt (DESTATIS) 2021: Finanzen der Hochschulen, Fachserie 11, Reihe 4.5, Tables 1.2.4 and 6.4
Statistisches Bundesamt (DESTATIS) 2013: Finanzen der Hochschulen, Fachserie 11, Reihe 4.5, Tables 1.2.4 and 6.4

Destatis refers to the German Statistical Agency (Statistisches Bundesamt). The data for core funding refer to Trägermittel. Third Party funding refers to Verwaltungseinnahmen and Drittmittel.

1.d. Share of funding mechanism type			Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)			
	Funding formula	Other (e.g., Historically determined/incremental)	
Share in 2010 (or closest year available)	√	√√√√	
Current share (in 2020 or most recent year)	√	√√√√	

Source:
 MWK Niedersachsen: Modellbeschreibungen der Leistungsbezogenen Mittelzuweisung der Hochschulen in staatlicher Verantwortung (gültig ab 2016)
[See here](#)

A1.14.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission.	Education	Research	Other	Comments and references
	Universities			
<p>In total 48% of the performance-related funding</p> <p>1. 21 % for first-year students related to the total number of first-year students</p> <p>2. 75% for the number of graduates which are weighted according to their</p>	<p>In total 48% of the performance-related funding</p> <p>1. 74% for the percentage of third-party funding in the disciplinary area of total third-party funding</p> <p>2. 24% for the number of PhDs related to the number of all PhDs in</p>	<p>Gender equality</p> <p>4% of the performance-related funding</p> <p>1. 20% for the number of female academic staff related to all-female academic staff</p> <p>2. 40% for all newly appointed female professors related to all</p>		

<p>time-to-degree related to the standard study period</p> <p>3. 2% for incoming international students related to all incoming international students</p> <p>4. 2% for outgoing students related to all outgoing students</p>	<p>Niedersachsen (only PhDs that underwent quality check)</p> <p>3. 2% for the number of Alexander-von-Humboldt Fellows and prize-winners related to all Alexander-von-Humboldt Fellows and prize-winners</p>	<p>newly appointed female professors</p> <p>3. 20% for the number of PhDs from females related to the total number of PhDs from females</p> <p>4. 20% for female graduates from degree programmes with a share of females below 50% related to all females in those programmes</p>	<p><i>Einrichtungen</i> (Central Units) are counted as teaching and research units if their main purpose is the provision of education and research.</p> <p>Information on the funding formula:</p> <p>Lower-Saxony was among the early users of performance-based funding formulas in Germany. With the PBF Lower-Saxony wanted to establish a system that is data-driven and output-oriented and allows steering (at least to some extent).</p> <p>In the past 15 years, the indicators for teaching and research incentivised HEIs to increase their engagement in these areas. There were good results in the area of graduate numbers and student success, also, HEIs were more strongly engaged in quality assurance and enhancement of education.</p> <p>Also, the indicator third-party funding is a strong incentive, as there was an increase in these funds.</p> <p>There is a bit of dissent about the gender equality indicators, to some interviewees, these were foremost political indicators as they find that the participation of females evolves in a fuzzy context and is not an outcome of the performance of the HEIs.</p> <p>Interview partners also mentioned that – due to the quite low amount of money that is redistributed in the PBF, it is not a very strong incentive. The so-called traffic light system of performance in which the HEIs' performance is evaluated is seen as a stronger incentive – as it stimulates engagement through comparison and highlighting good and less good performances.</p>
<p>Universities of Applied Sciences</p>			<p>See 'Comments and references' in Section 2.a.</p>
<p>In total 84% of the performance-related funding</p>	<p>In total 12% of the performance-related funding</p>	<p>Gender equality 4% of the performance-related funding</p>	

	<p>1. 21 % for first-year students related to the total number of first-year students in Niedersachsen</p> <p>2. 75% for the number of graduates which are weighted according to their time-to-degree related to the standard study period (Regelstudienzeit)</p> <p>3. 2% for incoming international students related to all incoming international students in Niedersachsen</p> <p>4. 2% for outgoing students related to all outgoing students in Niedersachsen</p>	<p>1. 100% for the percentage of third-party funding in the disciplinary area of total third-party funding</p>	<p>1. 30% for the number of female academic staff related to all-female academic staff</p> <p>2. 40% for all newly appointed female professors related to all newly appointed female professors</p> <p>3. 30% for female graduates from degree programmes with a share of females below 50% related to all females in those programmes</p>	
--	---	--	--	--

2.b. Indicators mentioned classified as performance indicators

Expect for the number of first-year students (that is part of the funding formula for education) *all* indicators are regarded as performance indicators or output indicators.

The number of first-year students depends also on the funding provided through the “Hochschulpakt 2020” (one of the collaborative funding of federal and Länder-level) which support HEIs in creating more study places and is actually an input indicator.

A1.14.3 Funding agreements/contracts

3.a. Main criteria used in the funding contract/agreement ranked by importance sorted by mission	<p>For the performance agreements at the beginning of each new contract period, the ministry issues or updates a list of major areas in which it expects the HEIs to develop and enhance their performance. HEIs are free to make choices in which areas they would like to engage. This aims to support the profiling of the higher education landscape, but also HEIs in specialising and emphasizing their strengths.</p> <p>In the performance agreements, the HEI can state foremost qualitative goals that are mostly serving “meta-goals” such as inclusion or internationalisation. The performance agreements must provide an operationalisation of goal achievement, there are no prescribed standard goals that all HEIs must achieve. HEIs themselves determine the importance of objectives.</p> <p>The performance agreements serve as a legitimisation of the budget provided to the HEIs, but they do not assign specific budgets to the stated goals. However, at the end of each contract period the HEIs report on their goal achievements. There are negative sanctions for significant underperformance. In these cases, an appropriate reduction of the global budget in the new contract period is made, and the ‘free money’ is included in the reallocation.</p> <p>The current Hochschulentwicklungsvertrag states as major areas for the development of the higher education sector:</p> <ul style="list-style-type: none"> Strengthen profiles of HEI Extend cooperation among HEI <u>Enhance quality of education</u> Increase access and (increase social inclusion) Make open access HEI a success Secure a base of highly qualified labour supply Promote research (science) for sustainable development Strengthen research and innovation Achieve gender equity in higher education Increase internationalisation <u>Make academic careers more attractive</u> Facilitate/secure transition to the labour market Enhance teacher education <u>Guarantee transparency in research</u> Further enhancement of the infrastructure Digitalisation of the higher education sector Increasing study success and reducing dropout in the STEM Sciences. <p><i>Note: Bold and <u>underlined</u> areas have an important role in funding in collaboration with the federal level).</i></p> <p>As the HEIs can autonomously define qualitative goals for their performance, no standard indicators can be listed.</p> <p><i>Source: MWK Niedersachsen: Zielsetzungen und Erwartungen des Landes zur Hochschulentwicklung in Niedersachsen. (see here)</i></p>
3.b Criteria classified as performance criteria	

Comments and references	See 'Comments and references' in Section 3.a.– no standard indicators available.
--------------------------------	--

3.c. Parties involved in the contracts negotiation and time frame	Comments and references	
<p>A two-party contract exists between the Ministry and the individual higher education institutions.</p> <p>Stakeholders such as the <i>Länderrektorenkonferenz</i> (rector's conference of Niedersachsen) collaborate with the Ministry when defining the development areas for higher education institutions that serve as a framework for the individual performance agreements. i.e. in the negotiations the HEIs agree to the framework but set individual performance targets.</p> <p>The contract period is three years (currently 2019 – 2021).</p>		

3.d. Rationale of the funding authorities for using a funding contract/agreement	Comments and references	
<p>The rationales include:</p> <ul style="list-style-type: none"> Legitimising the global budget provided to the HEIs Allowing institutional autonomy, while exerting a steering influence on the shaping of the higher education landscape Developing the HE sector in the areas mentioned in Section 3.a. 		

3.e. Degree to which the HEI can decide on the choice of performance targets and associated indicators		Comments and references
HEIs agree to the overall framework of development areas and agree on individual performance targets for each of the development areas.		
		N/A

A1.14.4 General information on PBF

4.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references
Estimate	Between 50- 60%	
		This percentage refers to the <i>Trägermittel</i> which are income generated from the funding formula and the performance agreement. The share might differ as HEIs can generate their own income from sources such as fees, tuitions, <i>Eigenkapital</i> or hospitals. Also, the collaborative funding with the federal level has an impact here, in particular, the funds provided in competitive schemes (They can amount to 10% of the budget of individual HEIs)

4.b. Evolution of performance orientation in core funding system since 2010				Comments and references
Increased	Remained the same	Decreased	Don't know	
	√			
				<p>The Ministry aims to provide HEIs with planning reliability, therefore the indicators of the performance-based funding formula are rarely changed. Also, as it takes up to several years until incentives reveal their impact (for example, in education), the funding formula is hardly changed. Small adaptations of the definition or calculation of performance indicators are done after discussions with stakeholder organisations of the HEIs (such as the <i>Landesrektorenkonferenz</i>).</p> <p>This was confirmed by the university representative. HEIs consent with the long-term stability of the funding formula as it provides them with security for their long-term planning.</p>

A1.14.5 Data collection and performance monitoring

5.a. Data collection mechanisms tied to the performance-based funding system	<p>A federal law, the Hochschulstatistik Gesetz obliges the HEI to collect and submit data on their performances. This data forms the base for the calculation of performance-based funding. Also, a manual on Hochschulkennzahlen (Indicators for higher education) guides the HEI in collecting and submitting the data. The ministry processes the data, i.e., it assigns achievements and performances to the teaching and research units based on a calculation of the capacity that is also done by the ministry.</p> <p>With this policy, the ministry aims to put as little burden as possible on the HEIs but also to use valid and transparent data when calculating the individual share of performance-based funding. To this end, clearly defined indicators were selected for the funding formula.</p> <p>Using data to monitor the performance of HEIs was also a starting point for developing the formula-based performance funding.</p>	Comments and references	<p>Source: <i>Hochschulkennzahlensystem Niedersachsen 2016 Handbuch. Fortschreibung des Handbuchs aus dem August 2013. (see here)</i></p> <p><i>Interview with ministry and university representative.</i></p>
---	---	--------------------------------	---

5.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system	Comments and references
All indicators mentioned in Section 2.a. are quantitative indicators.	N/A

5.c. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system
According to interviews with the Ministry representatives, there is a moderate administrative burden.

A1.15 Greece

A1.15.1 Context

1.a. Country name – Greece	Higher education is public. The State supervises and finances higher education institutions (HEIs), as well as their security and disciplinary framework according to the law 4777/2021 . HEIs enjoy full self-administration and academic freedom.
1.b. Higher education sub-sector	In Greece, higher education is provided by HEIs. There are 24 HEIs, as well as a School of Pedagogical and Technological Education (ASPEPE) and 4 Church Academies, and no private HEIs exist in the country. <i>Source: (see here)</i>

1.b. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2010 (or closest year available)	N/A	N/A	N/A	N/A	

2020 (or most recent year)	N/A	N/A	N/A	N/A	<p>Income from the institution's entrepreneurial activity or private assets; Income from investment grants; Donations, endowments and bequests; Other resources.</p> <p><i>Source: (see here)</i></p> <p>No information is available on the funding breakdown. <i>Source: Interview with Ministry of Education</i></p>
----------------------------	-----	-----	-----	-----	--

1.c. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined/incremental)	
Share in 2010 (or closest year available)	0	√√√		
Current share (in 2020 or most recent year)	√√	√√√		

Please note that 20% of the core funding for Universities will be performance-based from January 2022.
Source: Answers to ICF survey from Ministry of Education

A1.15.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission	Education	Other	Comments and references
	1. Total number of students enrolled 2. Estimated annual tuition costs per student per programme 3. Duration of the programme	1. Capacity and geographical spread of the institution	

A1.15.3 Funding agreements/contracts

3.a. Parties involved in the contracts negotiation and time frame	Comments and references
Planning agreements are issued by the governing bodies of each institution and submitted to the Hellenic HE Authority (HAHE) by the end of January preceding the year of the agreement's entry into force. Within a 3 month period, the agreements are signed by the MoE following the HAHE evaluation. HAHE also proposes the formula for funding allocation to the MoE. On the financial part of the agreements, HAHE proposals concern only the performance-based funding share (20%) of the total budget.	

3.b. Rationale of the funding authorities for using a funding contract/agreement	Comments and references	Source: <i>Answers to ICF survey from Ministry of Education</i>
Planning agreements are drawn in order to facilitate institutions to align with the national HE strategy and to provide incentives towards efficiency and quality improvement.		

3.c. Degree to which the HEI can decide on the choice of performance targets and associated indicators	Comments and references	Source: <i>Answers to ICF survey from Ministry of Education</i>
There is a number of mandatory criteria and targets and a number of optional ones. Higher Education Institutions can choose the performance targets and associated (quantitative and qualitative) indicators included in their funding contract themselves (as opposed to picking them from a mandatory list). This refers to the upcoming reform.		

A1.15.4 Data collection and performance monitoring

4.a. Data collection mechanisms tied to the performance-based funding system	Comments and references	Source: <i>Answers to ICF survey from Ministry of Education</i>
An Integrated Information System for the collection of HE data is managed by the HAHE, while evaluation results are published annually by the Hellenic HE Authority (HAHE). (see here)		

<p>5.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Comments and references</p>	<p>Source: <i>Answers to ICF survey from Ministry of Education</i></p> <p>Source: <i>article 7§2, law 4653/2020 (Gov. Gazette 12/A/24.01.2020)</i></p>
<p>Quality and Efficiency of Education Process Indicators</p> <ul style="list-style-type: none"> Incoming Students to Graduates Ratio Graduate's Professional Tracking <p>Research Activity Indicators</p> <ul style="list-style-type: none"> No of Staff receiving grants No of Centres of Excellence in Research Faculty members in International research organizations boards Publications per faculty member Faculty members in International research programmes <p>Degree of Internationalization Indicators</p> <ul style="list-style-type: none"> Foreign to national students ratio No of incoming exchange students No of outgoing exchange students No of cooperation agreements with European and international institutions 		<p>Source: <i>Answers to ICF survey from Ministry of Education</i></p> <p>Source: <i>article 16§2, law 4653/2020 (Gov. Gazette 12/A/24.01.2020)</i></p>
<p>4.c. Qualitative performance information reported by HEIs to the government in the context of the performance-based funding system</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Comments and references</p>	<p>Source: <i>Answers to ICF survey from Ministry of Education</i></p> <p>Source: <i>article 16§2, law 4653/2020 (Gov. Gazette 12/A/24.01.2020)</i></p>
<p>All criteria are number-based.</p>		

A1.16 Hungary

A1.16.1 Context

1.a. Country name - Hungary	Higher education institutions can be categorised in the following two ways.
1.b. Higher education sub-sector	<p>1) State and non-state regulated institutions. Non-stated institutions can be founded by churches, business organisations or foundations and, as of 2019, a new type of institution exists, in which the maintainer and the operator is a public-interest trust foundation, which takes over the maintenance responsibilities from the state.</p> <p>2) According to the Act on Higher Education, with regard to academic profile, there are universities, universities of applied sciences and colleges (non-university higher education institutions).</p> <p>State and non-state institutions recognised by the state are listed in Annex I. of the Higher Education Act. Further information here.</p> <p>Hungary will have a reform of its HE funding system from September 2021. The HE funding system will be articulated around 3+1 pillars: education, research, infrastructure. In these, the reform will link 30% of HE funding to performance. The +1 area “dedicated interventions” will be 100% based on performance.</p>

1.b. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other fees	3 rd party funds	Total	
2008	70%	15%	5%	100%	
2017	74%	22%	4%	100%	

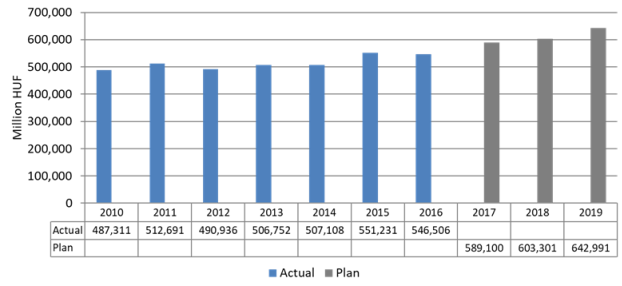
2008 data: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). *Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report*. Enschede: CHEPS, p. 45. [URL](#).

Before 2012: Normative input-based funding model based on number of students

From 2012:

- Cost of education became the basis of funding
- Institutions establish their own prices based on their costs, and within the limits of the Govt. decree 389/2016
- State funding matches the institutions' pricing

Funding figures (from the Ministry of Finance):

						 <table border="1"> <thead> <tr> <th></th> <th>2010</th> <th>2011</th> <th>2012</th> <th>2013</th> <th>2014</th> <th>2015</th> <th>2016</th> <th>2017</th> <th>2018</th> <th>2019</th> </tr> </thead> <tbody> <tr> <td>Actual</td> <td>487,311</td> <td>512,691</td> <td>490,936</td> <td>506,752</td> <td>507,108</td> <td>551,231</td> <td>546,506</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Plan</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>589,100</td> <td>603,301</td> <td>642,991</td> </tr> </tbody> </table> <p>HEIs have received funding from the following sources since 2017: 50% institutional funding, 24% competitive funding, 22% own incomes (i.e. tuition fees, services), 2-4% direct R&D funding from third parties, and less than 1% from donations. Source: OECD (2017).</p>		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Actual	487,311	512,691	490,936	506,752	507,108	551,231	546,506				Plan								589,100	603,301	642,991
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019																													
Actual	487,311	512,691	490,936	506,752	507,108	551,231	546,506																																
Plan								589,100	603,301	642,991																													

1.c. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined / incremental)	
Share in 2010 (or closest year available)	√√√√	√	Historically determined/ Incremental: √√	
Current share (in 2020 or most recent year)	√√√√			

Data for 2010 (or closest year available) is based on 2008 data.

Source: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). *Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report*. Enschede: CHEPS, p. 48. URL.

A1.16.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission (performance indicators in bold)	Education	Number of full-time students inscribed Type of education Level of education (i.e., BA, MA, PhD) Norms per students differentiated by fields of specialisation	Comments and references	<p>Source: Jonkers, K. & Zacharewicz, T. (2015). <i>Performance based funding: a comparative assessment of their use and nature in EU Member States</i>. Report by the Joint Research Centre, EUR. 27477.doi10.2791/134058</p> <p>As stipulated by the Higher Education decree, dedicated development funds can be allocated to certain HEIs. These, however, are not core funds. Source: link.</p> <p>The current system does not consider the mentioned indicators as performance indicators but input indicators. Reforms are underway and a new system will be progressively introduced starting September 2021. From a 100% normative-based funding, this will make a move towards a 70% normative-based funding & 30% performance-based funding.</p>
	Research	Number of teachers and researchers (FTE) Number of state-financed PhD students (FTE) Number of qualified staff out of teachers (FTE) Number of teachers that get qualified (i.e., PhD and higher scientific qualifications) in the current and previous two years Number of awarded scientific qualifications in the current fiscal year		
	Equally to Education and Research	/		
	Engagement (3 rd Mission)	/		
	Other	Maintenance support that is based on the size of the infrastructure		

A1.16.3 Funding agreements/contracts

<p>3.a. Main criteria used in the funding contract/agreement ranked by importance sorted by mission</p>	/	<p>Comments and references</p>	<p>Supplementary funding is provided to HEIs run by churches. This is regulated by two larger funding contracts as follows:</p> <ul style="list-style-type: none"> International contract with the Vatican Agreements with the historical churches in Hungary (Protestant, Lutheran, Israelite) <p>Currently, there are 19 accredited HEIs run by churches in Hungary. Full list to be found here. Overview of funding details could not be found.</p>
--	---	---------------------------------------	--

A1.16.4 Other funding systems

<p>4.a. System in place if there is no formula or contract</p>	<p>While core funding of HE institutions from public sources is mostly distributed using formula funding, historical/incremental allocations holds some importance. "The size of the grant is based on previous years' allocations and reflects past costs in particular", through this funding mechanism.</p>			<p>Comments and references</p>	<p>Based on data from 2008: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). <i>Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report</i>. Enschede: CHEPS, p.47. URL.</p>
<p>4.b. Inclusion of performance-related elements</p>	<p>Input-related criteria including previous years' (historical) allocations, including allocations that remain fixed from one year to the next, is the only driver in the direct public operational grants allocated to public universities in Hungary.</p>			<p>Comments and references</p>	<p>Based on data from 2008: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). <i>Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report</i>. Enschede: CHEPS, p.47. URL.</p>
<p>4.c. Criteria in the funding system linked to the goal of internationalisation in higher education</p>	<p>Education-related internationalisation criteria</p>	<p>Research-related internationalisation criteria</p>	<p>Internationalisation criteria that are equally related to education and research</p>	<p>Engagement (3rd mission, entrepreneurship, etc.) - related internationalisation criteria</p>	<p>Comments and references</p> <p>Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). <i>Progress in higher education reform across Europe. Funding</i></p>

	Encouraging institutions to enable their students to take (part of) a programme abroad, where these opportunities are evenly distributed across institutions	Attracting international researchers and collaboration on a competitive basis	/	/		Reform. Volume 1: Executive Summary and main report. Enschede: CHEPS, p.47.
--	--	---	---	---	--	---

A1.16.5 General information on PBF

5.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references
Exact	Education: 70%; Research: 20%; Other tasks: 10%	
Estimate	/	

Source: ET2020 Working Group on Higher Education (2020) ePeer Learning Activity (PLA) on “*The Power of Funding in Steering Performance of Higher Education Institutions*”.

5.b. Evolution of performance orientation in core funding system since 2010				Comments and references
Increased	Remained the same	Decreased	Don't know	
√				

Source: ET2020 Working Group on Higher Education (2020) ePeer Learning Activity (PLA) on “*The Power of Funding in Steering Performance of Higher Education Institutions*”.

A1.16.6 Data collection and performance monitoring

6.a. Data collection mechanisms tied to the performance-based funding system	Comments and references	Source: 389/2016. (XII. 2.) Government Decree on the financing of the core activities of higher education institutions.
Data on student numbers and performance-based indicators based on which the basic grant is provided is extracted from higher education information system, particularly employment data of graduates can be obtained from the administrative database of the graduate career tracking system.		
6.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system	Comments and references	Source: Jonkers, K. & Zacharewicz, T. (2015). <i>Performance based funding: a comparative assessment of their use and nature in EU Member States</i> . Report by the Joint Research Centre, EUR 27477.doi10.2791/134058
Number of full-time students inscribed Number of teachers and researchers (FTE) Number of state-financed PhD students (FTE) Number of qualified staff out of teachers (FTE) Number of teachers that get qualified (i.e., PhD and higher scientific qualifications) in the current and previous two years Number of awarded scientific qualifications in the current fiscal year		
6.c. Qualitative performance indicators reported by HEIs to the government in the context of the performance-based funding system	Comments and references	Source: Jonkers, K. & Zacharewicz, T. (2015). <i>Performance based funding: a comparative assessment of their use and nature in EU Member States</i> . Report by the Joint Research Centre, EUR 27477.doi10.2791/134058
Type of education Level of education (i.e., BA, MA, PhD) The norms per student differentiated by specialisations (e.g., medicine, engineering, humanities) The size of the infrastructure of the institution		

6.d. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system	Comments and references	
Low/no administrative burden.		Source: 389/2016. (XII. 2.) Government Decree on the financing of the core activities of higher education institutions.

A1.16.7 Any other comment

The reforms underway will introduce a strong PBF component in the Hungarian HE funding. The new system will establish a 70%-30% core funding and performance-based funding with clear performance indicators and sub-indicators already known. It will be interesting to understand how the system unfolds as it will be progressively introduced from September 2021.

A1.17 Ireland

A1.17.1 Context

1.a. Country name - Ireland	Higher education is predominantly carried out through Universities (9 in total), and Technological Universities and Institutes of Technology (11), which award qualifications up to doctoral level. Specialist institutions (4) exist for teacher training, art and design, and medicine.
1.b. Higher education sub-sector	

1.b. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2016	25%	46%	29%	100%	
2019 (ETER)	23%	41%	36%		

Data based on ETER database, [here](#).

From OECD Education Policy Outlook Ireland 2020, on page 21 [here](#):
Public higher education institutions are mainly funded by the State, and receive compulsory student contributions (EUR 3 000), fees from those not eligible for free tuition (non-EU international students, EU students returning to higher education), research grants and other funding sources. Unlike most other OECD countries, around 10% of the funds are generated and distributed by local governments.

The Higher Education Authority (HEA) is the statutory agency responsible for the allocation of exchequer funding to the universities, institutes of technology (IoTs) and other higher education institutions (HEIs). Most of the grants which the HEA allocates are 'recurrent' grants, allocated against the ongoing running costs of the institutions. The HEA also allocates capital funding for buildings and equipment with agreement from the Department of Education and Skills, although such funding has been very limited in recent years. The HEA recurrent grant contributes to about 50% of the core teaching and research budget of the institutions, with the balance derived from the student contribution, fees and income generated by the institutions. Income is generated from the sale of services, rental of facilities and profit on international education.

Tuition fees payable by students were abolished in 1997, and since this time the government has paid a fee in lieu of the student, at a level it sets. This grant (the free fees grant) therefore represents the undergraduate fees. The allocation is based on course fees multiplied by certified student enrolments. Since 1995/6 this grant has been distributed by a process involving the submission of a fee claim which is certified by the president of each HEI. However, the fees paid in lieu do not meet the costs of education and a registration fee payable by students has increased considerably to cover these costs.

1.c. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined / incremental)	
Share in 2010	√√√√		√	<p>There are three separate, but related, elements to the funding allocation model: (1) Block grant, including support for research and access; (2) Top-slices: i.e. funding ring-fenced for specified purposes, typically for limited periods (see other funding); and (3) Performance funding (see other funding) – see <i>Source: here</i>.</p> <p>The Top Slices are categorised here as “Other Funding”. This is why we also inserted some information in section 4 (below) of this template. However, some of the top-slices are formula-based and for that reason we inserted information on the indicators used in the formulas in section 2a below.</p> <p>The Block Grant is allocated in recognition of core cost drivers for all institutions. Institutions themselves then control how they apply and use the resources provided, with outputs agreed and monitored as part of a system performance framework. The Block Grant is funding provided as a single grant allocation to</p>

Current share in 2020	√√√√	√	√	<p>HEIs with the internal budgeting determined by the institutions themselves, subject to review by HEA. The block grant allocation comprises two components: a core recurrent grant and a free fees allocation</p> <p>1. The core recurrent grant is allocated through a funding formula. The formula is significantly driven by audited prior-year retained student numbers (as at March of each academic year), weighted for the relative costs of providing education in different disciplines, with additional allocations in recognition of research and access. All changes in student numbers from one 24 year to the next are considered in determining the annual grant allocation. However, stability in funding is provided by limiting or moderating the pace at which resultant changes in funding are implemented to plus or minus 2% of the average sectoral change in any one year. The term RGAM (Recurrent Grant Allocation Model) is used to refer to this specific ‘core grant’ element of the allocation only.</p> <p>2. The free fees allocation: Most undergraduate students attending publicly funded third-level courses do not have to pay tuition fees. Under the terms of the Free Fees Initiative, the Department of Education and Skills pays the fees to the colleges instead. The amount of the student contribution varies from one institution to another. The maximum rate of the student contribution for the academic year 2021-2022 is €3,000.) The free fees grant, which is a legacy funding arrangement provided ‘in lieu of tuition fees’ since the abolition of student-paid fees in 1995/96. It is based on certified student numbers (EU, first-time enrolments only) in each undergraduate programme, multiplied by the historically determined fee for the programme. Before the financial downturn, a process was operated whereby the HEIs, the HEA and the Department of Education and Skills agreed the annual percentage by which these fees could be up-rated. This up-rate was based on allowed levels of prior year pay and non-pay inflation arising from government negotiated pay deals and took into account the pay/non-pay split in HEI accounts. When tuition fees were abolished in 1995/96, there was a nominal additional fee of £150 paid by the student for registration and examinations to the examining and awarding bodies such as NUI and HETAC. It was this additional fee that, through successive increases, became the €3,000 student contribution of today. This contribution is subtracted from the fee due to the institution as part of the free fees grant allocation from the HEA. Fees typically range from €6,000 to €8,000 (effectively €3,000 to €5,000 after the student contribution is taken into account) for the Universities and from €3,000 to €4,000 for the IoTs (effectively up to €1,000 after contribution). Overall available funding is split on a fixed 60/40 proportion between two funding pots: one for universities and colleges and one for institutes of technology. The ‘free fees grant’ requirement for each of these sub-sectors is taken as the first call from each pot and the remaining grant funding for each sector is allocated through the subject-price formula funding model.</p>
-----------------------	------	---	---	---

				<p>3. Block Grant Support for Research: The major portion of core grant support for research is provided through the research student numbers that are included in each institution’s overall student numbers and in the allocation formula. The support for research is in recognition of the need to provide a ‘foundation investment’ to embed research excellence across the system. It is used to put central research support infrastructure in place, to fund academic posts for Principal Investigators and facilitate engagement by academic staff in research activities, including the development and supervision of postgraduate researchers. Institutions themselves have the final say on the distribution of their budgets between teaching and research, in accordance with their mission and objectives. The block grant recognises the research mission of institutions in two ways. Firstly, by applying a multiplier to funding per student for all those students engaged in postgraduate research activity (3 times an undergraduate student in the universities and 2 times an undergraduate in the IoTs). About 20% of the universities weighted student numbers are currently research student numbers, against 3% in the IoTs. It is considered that the number of postgraduate research students reflects the broad scale of research activities within an institution across all disciplines and hence the need for wider investment in research support infrastructure and supervisory resources.</p> <p>In addition to the grant funding that is based on research student numbers, there is, in the universities’ ‘pot’ only, a research top-slice of 10%, which is then distributed on the basis of research metrics (see 2a), with 75% of each university’s award linked to research degree completions over the last three years and 25% to competitively earned research income per academic staff member. The impact of this top-slice has declined significantly, from a value of €24.5m in 2007 to just €9m in 2016, as state grants were replaced by student contribution and the amount available for RGAM allocations to HEIs diminished. However, the % was increased from 5% to 10% after 2017. There is an allocation of €5M Research and Innovation Grant provided to the Technological Sector.</p> <p>4. Block Grant Support for Access: Core funding support for improving access to higher education involves an additional premium of 0.33 being added to the discipline-based weighting for all eligible access students. This takes account of the additional costs of recruiting and retaining students from under-represented backgrounds. Thus a science student from an access target group attracts a weighting of 1.7 for discipline plus 0.33 for access, giving a total weighting of 2.03. For those from targeted socio-economic groups and mature students, this is applied for the first two years of course duration to reflect the higher support needs during this period. For people with disabilities a further multiplier of 2 is applied for the entire length of the course to reflect the higher support resources required.</p>
--	--	--	--	--

					Source: Review of the Allocation Model for Funding Higher Education Institutions (2017) RGAM Review: Data analysis and Modelling (hea.ie)
--	--	--	--	--	---

A1.17.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission.	Education	Research	Equally to Education and Research	Engagement (3 rd Mission)	Other	Comments and references
			1. Research graduate numbers 1. Research income 1. Knowledge transfer metrics 2. Competitively earned research income per academic staff member	1. Student numbers weighed by costs in different disciplines 1. Disadvantaged students		

A1.17.3 Funding agreements/contracts

3.a. Main criteria used in the funding contract/agreement ranked by importance sorted by mission	Education	Research	Equally to Education and Research	Engagement (3 rd Mission)	Other	Comments and references
	1. Equality of opportunity (diversity & social mix of student body) 1. Quality of learning and	1. Excellent RDI	1. Talent pipeline/skills needs 1. International engagement	2. Opportunities for national and international engagement (with	1. Improvement in governance, leadership and operational excellence	

	academic excellence 2. Student progression 2. Graduate employability 2. Addressing Teacher Supply Challenges 2. Enhancement of counselling services			enterprise & community) 2. Sustainable development 2. Climate Action	2. Informed consent	<p>performance against the mission-based performance compacts and will use this information to verify the overall contribution of HEIs at a system level to meeting national priorities and objectives, as set out in the framework (<i>Source</i>). The HEI's proposed targets are subject to challenge by an external expert panel and are formally agreed in a dialogue process. The HEA co-ordinates the approach at a system level in order to ensure pursuit and ultimate achievement of the Minister's system-level goals. (see: here).</p> <p>Higher Education Institutions choose the performance targets and associated (quantitative and qualitative) indicators included in their funding contract themselves (as opposed to picking them from a mandatory list). Since 2013, a performance funding component has been established, which allows for the withholding of up to 10% of the allocated block grant (including free fees) based on verified performance against agreed targets for the preceding year. This approach centres around a system of agreed 3-year mission-based compacts.</p> <p>In 2017, an HEA review of the model noted that the withholding 10% could be seen as negative – HEIs could lose up to 10% to other HEIs, so the HEI strategic imperative might have been to protect at all costs by setting low targets or easy wins. The HEA view was that this could limit risk, ambition and innovation in the system. The 2017 review proposed an additional allocation specifically for 'positive' performance funding of €5m to recognise good performance, alongside the possible 10% downside risk. In theory this is the base amount of €5m performance funding, could be topped up by any withholding, but the HEA has not had the opportunity to do that yet. In time there should be a competitive pot building up of new and withheld money. Withholding is rare enough as the significant performance issues seen are normally as a result of under resourcing or financial difficulties in a HEI, a further reduction of 10% doesn't help in those cases. It is however the experience of the HEA that the threat of a withhold, even at 3% or so, usually improves HEI behaviour and brings the</p>
--	---	--	--	--	---------------------	--

						<p>necessary strategic changes required to address underperformance (HEA interview).</p> <p>The extra EUR 5m is distributed as part of a national reward scheme administered by the HEA since 2019. It is referred to as Impact Case Studies. Following the agreement of Mission-Based Performance Compacts for the period 2018-2021, HEIs are each required to submit an Impact Case Study setting out an exemplar of their progress in implementing performance compacts. Joint or collaborative case studies between Irish HEIs are welcomed.</p> <p>The Impact Case Study should be aligned with national priorities and targets, as set out in HEI compacts and with reference to the System Performance Framework 2018-2020 and evolving national policy objectives. Initiatives described in the case studies should have been implemented within recent years and may have concluded or be ongoing. This is a discretionary fund and supplements core funding. It funds specific initiatives that link to one of the 14 high level themes that are part of the Strategic and Performance Dialogue framework. Six of these are system priorities:</p> <p>Providing a strong talent pipeline combining knowledge, skills & employability which responds effectively to the needs of our enterprise, public service and community sectors, both nationally and regionally, and maintains Irish leadership in Europe for skill availability;</p> <p>Creating rich opportunities for national and international engagement which enhances the learning environment and delivers a strong bridge to enterprise and the wider community;</p> <p>Excellent research, development and innovation that has relevance, growing engagement with external partners and impact for the economy and society and strengthens our standing to become an Innovation Leader in Europe;</p>
--	--	--	--	--	--	---

						<p>Significantly improves the equality of opportunity through Education and Training and recruits a student body that reflects the diversity and social mix of Ireland’s population;</p> <p>Demonstrates consistent improvement in the quality of the learning environment with a close eye to international best practice through a strong focus on quality & academic excellence;</p> <p>Demonstrates consistent improvement in governance, leadership and operational excellence.</p> <p>There are also Evolving National Policy Objectives / Themes, and in 2020 these were: 7. Student progression; 8. Graduate employability; 9. Addressing Teacher Supply Challenges; 10. Sustainable development 11. Climate Action (Climate Action Plan 20195); 12. Informed consent; 13. Enhancement of counselling services in higher education institutions; 14. Mental Health; 15. Student Engagement</p> <p>HEIs are asked to identify where they have performed well with a particular initiative and submit an impact assessment case study. This is evaluated by Impact Assessment Panels (including international advisors/experts) based on whether the initiative is innovative or improves performance. The HEIs also need to set out what they will do with the money by way of a delivery plan and timetable. The extra funding would be used by them to build on their successful initiative. At the moment there are 11 awards: two of EUR 1m; 4 of EUR 500,000; and 5 of EUR 200,000. There has been concern that the same top universities will get the awards each time but the themes are broad-ranging and initiatives such as child care would be more applicable for some universities than others.</p> <p><i>Sources.</i></p> <p>Examples of initiatives, here.</p> <p>Performance Funding Allocations 2019, here.</p>
--	--	--	--	--	--	--

							From Survey: The oversight agreement sets out the broad governance and accountability framework required of the higher education institutions by the HEA. It sets out the key responsibilities which form the basis of the relationship between the HEA and the Institution. This agreement is underpinned by the relevant legislation, Government circulars (where applicable), the Code of Practice for the Governance of State Bodies, 2016 as encapsulated by the relevant sectoral code (“Code of Governance”), statutes, charters, articles and instruments of governance, particularly those which establish the HEA and the Institution and those which establish the degree of their autonomy and set out their powers and duties, and other governance arrangements that apply to the Institution and to the HEA. Separately, a performance agreement, the Compact, is in place which sets out the performance requirements and expectations between the HEA and the Institution.
3.b Criteria classified as performance criteria	Education	Research	Equally to Education and Research	Engagement (3 rd Mission)	Other	Comments and references	Survey: these are said to ‘reflect performance’
	1 Equality of opportunity (diversity & social mix of student body) 2. Quality of learning and academic excellence	1. Excellent RDI	1. Talent pipeline/skills needs 2. International engagement		1. Improvement in governance, leadership and operational excellence		

3.c. Funding criteria in the contracts linked to the goal of internationalisation

Survey: the criteria is creating rich opportunities for national and international engagement which enhances the learning environment and delivers a strong bridge to enterprise and the wider community. *HEA interview:* A new Internationalisation strategy is being developed. With the new broader government department, internationalisation would be more holistic and cover all aspects of HE. It is due by end of 2021. Internationalisation strategy is currently split between the EU and the UK. The new department is also producing an overall strategy which is expected to be more broad ranging and holistic than the last one which was focused on increasing student numbers. Internationalisation is a system theme in Ireland and is therefore in scope for discretionary award funding as described above.

3.d. Parties involved in the contracts negotiation and time frame

In the compacts, Higher Education Institutions (HEIs) propose their own targets relevant to their agreed mission and profile in line with objectives set by the Minister for Education and Skills as part of an overall system performance framework. Proposed targets are subject to challenge by an external expert panel, and are formally agreed in a dialogue process. The Higher Education Authority (HEA) co-ordinates the approach at a system level in order to ensure pursuit and ultimate achievement of the Minister's system-level goals. See [here](#).

From survey: The HEA and the HEIs with cognisance of the relevant legislation, Government circulars (where applicable), the Code of Practice for the Governance of State Bodies, 2016 as encapsulated by the relevant sectoral code ("Code of Governance"), statutes, charters, articles and instruments of governance.

3.e. Rationale of the funding authorities for using a funding contract/agreement

Performance funding is operating via a potential 'hold-back' of funding from the block grant, which could provide for institutional reward as well as penalisation in the future. This element of funding is intended to recognise the quality of an institution's overall performance in meeting targets for improvement, agreed in the context of the Minister's objectives for the system as a whole, allocated in a way that does not have financially destabilising consequences. The performance framework is intended to allow for a nuanced approach to protecting the diversity of the institutional mission, whereas a more standardised approach is reflected in the core.

See: HEA Review of the Allocation Model for Funding Higher Education Institutions. Working Paper 3: Current HEA Funding Allocation Model

3.f. Degree to which the HEI can decide on the choice of performance targets and associated indicators

In the System Performance Framework, HEIs are allowed to identify their strategic niche and mission and agree a performance compact aligned with funding with the Higher Education Authority (HEA). *Survey:* In relation to Compacts, Higher Education Institutions choose performance targets and associated (quantitative and qualitative) indicators included in their funding contract themselves (as opposed to picking them from a mandatory list).

A1.17.4 Other funding systems

4.a. System in place if there is no formula or contract

Apart from the block grant funding and the performance funding there is a separate element of funding, known as Top-slices. This is funding that is ring-fenced for specified purposes, typically for limited periods (see: [here](#)). Top-sliced, ring-fenced allocations for specific strategic or important purposes are earmarked from time to time by either the Department of Education or Skills or by the HEA.

At present, top-sliced funding is provided to support some institutional restructuring arising from the national strategy (Technological Universities [TUs], mergers, etc.). Also, it is used to grow new or expanded programmes, discipline restructuring arising from reviews of provision (Medical Education, Nursing Education), strategic innovation funding (National Forum for Enhancement of Teaching and Learning), and new or expanded programmes to meet identified skills' gaps. Other existing top-slices included funding for pension obligations, funding for shared service initiatives (e.g. HEAnet, IReL [e journals], an Irish Survey of Student Engagement, Athena SWAN), and protected funding to reflect additional cost components related to important but vulnerable areas (e.g. practice-based music schools).

A general principle of funding that is top-sliced and earmarked for new developments is that funding should progress through stages of being ring-fenced, then reviewed, and finally being either mainstreamed or discontinued. Typically, there is an up-front agreement on the duration of ring-fencing.

A1.17.5 General information on PBF

5.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria

Exact

Comments and references

The HEA allocates close to a billion in state funds annually through what is called the Recurrent Grant Allocation Model – RGAM.

For the **universities**, a research top-slice of 5% is applied. This is allocated on the basis of research metrics where:

Estimate	5% (for the universities sector)		<p>75% of the top-slice is allocated based on the university's output of research degrees (Masters and PhD) averaged over the three most recent years.</p> <p>25% is based on competitively earned research income per academic staff member.</p> <p>Source: HEA, Review of the Allocation Model for Funding Higher Education Institutions. Working Paper 8: Funding Research, Innovation and Enterprise Activity – available here.</p>
----------	-------------------------------------	--	---

5.b. Evolution of performance orientation in core funding system since 2010				Comments and references
Increased	Remained the same	Decreased	Don't know	
√				

A1.17.6 Data collection and performance monitoring

6.a. Data collection mechanisms tied to the performance-based funding system
<p>The HEA to date has published four higher education System Performance Reports reviewing the performance and progress of the system for the years 2014 – 2018. (see: here).</p> <p>Survey: The HEA collects this information - linked review of performance and has been linked to the possibility of withholding funding in the past and will be linked to ringfenced performance funding moving forwards.</p>

6.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system

See: System Performance Reports (item 7a, above)

6.c. Qualitative performance information reported by HEIs to the government in the context of the performance-based funding system

See: System Performance Reports (item 7a, above)

A1.17.7 Any other comment

HEA (2017), *Review of the Allocation Model for Funding Higher Education Institutions: Final Report*, DES, Dublin. Available [here](#).

A1.18 Italy

A1.18.1 Context

1.a. Country name - Italy	The university system encompasses:
1.b. Higher education sub-sector	68 state universities – of which 6 institutions awarding only doctoral qualifications 20 state-recognised universities 11 state-recognised online universities (<i>università telematiche</i>). <i>Source: see here</i>

1.c. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2010 (or closest year available)	65%	NA	NA		

2019	72%	16%	13%	100%	<p>chosen by universities themselves. This quota is equal to 23% in 2018 and will be increased annually between 2% and 5% to reach 30% of the overall funding in the next few years</p> <p>3. a residual quota (<i>Quota perequativa e di salvaguardia</i>) providing for compensations to avoid “shocks” in state transfers and a quota (<i>Quota interventi specifici</i>) for targeted measures such as strategic planning, student welfare and student services, student mobility, doctoral grants, incentives for the recruitment of academics and young researchers.</p> <p>Sources: <i>EACEA, OECD, Parliamentary Documentation - Chamber of Deputies, Ministry of University and Research</i></p> <p>Italian National Agency for the Evaluation of Universities and Research Institutes (ANVUR) website and publications. (see here and here)</p> <p>Source of 2019 data: Italian Court of Audit ('Corte dei Conti') May 2021</p>
------	-----	-----	-----	------	---

1.d. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined / incremental)	
Share in 2010 (or closest year available)	√		√√ (incremental)	
Current share (in 2020 or most recent year)				

Data from 2008.

Source: p. 48 Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). *Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report.* Enschede: CHEPS. ([see here](#))

A1.18.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission.	Education		Research		Comments and references	Source: Information from Survey and interview.
	Standard cost per student Internationalisation Quality of teaching activities Student achievements		Research quality and results Research grants Internationalisation academic staff Research staff Recruitment policies			
2.b. Indicators mentioned classified as performance indicators	Education		Research		Comments and references	Source: Information from Survey and interview.
	Standard cost per student Internationalisation		Research quality and results Research grants Research staff			

A1.18.3 General information on PBF

3.a. Share of direct core funding (allocated through formula funding, funding contracts, and/or historical/other mechanisms) driven directly by performance criteria		Comments and references
Exact	30% (2020)	
Estimate		

30% is composed of students' achievements and research evaluation (28%) and multiannual performance agreements (2%).

Sources: *European University Association (pg. 37) and Ministry of University and Research*

3.b. Evolution of performance orientation in core funding system since 2010				Comments and references
Increased	Remained the same	Decreased	Don't know	
√				

The share was 7% in 2009 and 13.5% in 2013. It was then set at 16% for 2014, 18% for 2015 and 20% for 2016. For the following years annual increase were foreseen of no less than 2%, and up to a maximum of 30% overall.

Three-fifths of this quota are divided between universities on the basis of the results of the research and one fifth on the basis of the evaluation of the recruitment policies (carried out every 5 years by ANVUR)

Source: *European University Association, Ministry of University and Research and interview.*

A1.18.4 Data collection and performance monitoring

4.a. Data mechanisms tied to the performance-based funding system	Comments and references
	Source: <i>Agenzia Nazionale per la Valutazione del sistema Universitario e della Ricerca (ANVUR)</i>

<p>Public universities and research institutes, as well as private institutions submit their research outcomes for evaluation. Currently, VQR is carried out every five years according to the law no. 232/2016, art. 1, paragraph 339. Findings are made public.</p>		<p>(see here)</p>
---	--	-------------------

<p>4.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system</p>	<p>Comments and references</p>	<p>Source: Agenzia Nazionale per la Valutazione del sistema Universitario e della Ricerca (ANVUR) (see here)</p>
<p>None</p>		

<p>4.c. Qualitative performance information reported by HEIs to the government in the context of the performance-based funding system</p>	<p>Comments and references</p>	<p>a) Originality, seen as the extent to which the output makes an innovative contribution in the way of thinking about or understanding the research subject, also distinguishing and developing innovative approaches;</p>
--	--------------------------------	---

<p>The VQR (Italian Evaluation of Research Quality for the period 2015-2019) uses the following criteria to assess research outputs. Assessment is made by the GEV (Groups of experts for evaluation). <i>(see on the right)</i></p>	<p>b) Methodological rigor, seen as the extent to which the output clearly addresses research objectives, taking into account the state of the art in the field, adopting appropriate methodologies and demonstrating the achievement of research goals.</p> <p>c) Impact, seen as the extent to which the output has influenced, or shall probably influence, the international scientific community, or the national one depending on the characteristics of the field.</p> <p>Each research output shall be classified into one of the following levels, based on the quality profile assessment:</p> <p>a) Excellent and extremely significant: the output reaches the highest levels in terms of originality, knowledge and use of literature, methodological rigor and clarity, impact in the scientific community.</p> <p>b) Excellent: the output reaches excellent levels in terms of the majority of the following aspects: originality, knowledge and use of literature, methodological rigor and clarity, impact in the scientific community.</p> <p>c) Standard: the output, with respect to the international standards, reaches satisfactory levels in terms of originality, knowledge and use of literature, methodological rigor and clarity, impact in the scientific community.</p> <p>d) Sufficient significance: the output, with respect to the scientific standards of its scientific community, reaches sufficient levels in terms of originality, methodological rigor and clarity, even if has limited impact in the scientific community.</p> <p>e) Low significance or Not admissible: the output has a low level of significance in terms of originality, knowledge and use of literature, methodological rigor and clarity, impact in the scientific community. This level also includes: research outputs not belonging to set of outputs considered for the current evaluation; or outputs presenting attachments, and/or inadequate documentation for the assessment or - in the cases referred to in Article 6, paragraph 8 - outputs co-authored where the author's contribution is not relevant.</p> <p><i>Source: Agenzia Nazionale per la Valutazione del sistema Universitario e della Ricerca (ANVUR)</i> <i>(see here)</i></p>
--	---

4.d. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system	Comments and references	
<p>The respondents from the Ministry (survey) declared that the administrative burden is moderate.</p> <p>Respondents from the university declared that the reporting requirements are often complex and sometimes ambiguous.</p>		<p>Sources: Survey, interview and further research (see here)</p>

A1.18.5 Any other comment

<p>This template was filled using:</p> <ul style="list-style-type: none">Interview with contacts from the University of Bologna. The University is a founding member of the Una Europa University Alliance.Desk research

A1.19 Latvia

A1.19.1 Context

1.a. Country name – Latvia	According to a recent study by ETER, Latvia has a binary system (Universities, Universities of Applied Sciences) as well as ‘other’ types of institutions such as academies and private, specialised higher education institutions (The ETER project, 2019, p. 41).
1.b. Higher education sub-sector	<p>The majority of students are enrolled in universities (54%), while around a third (34.2%) are enrolled in ‘other’ type of institutions. A relatively small share of students are enrolled in UAS (11.3%). Compared to other countries, Latvia has a substantial share of students enrolled in ‘other’ institutions such as academies. Academies in Latvia have the right to award doctoral degrees (The ETER project, 2019, pp. 17, 20, 34, 41).</p> <p><i>Source: (see here)</i></p>

1.c. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2020 (ICF/CHEPS survey)	59%	41%	...%	100%	
2019 (ETER data)	55%	17%	10%	82%	In 2019, 18% of revenues are from other sources. Data based on 27 universities and state colleges.

1.d. Share of funding mechanism type	Comments and
<p><i>Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)</i></p>	
<p>Higher education funding has been based on a formula for the last decade. However, the formula was adjusted in 2015, moving from an input-based formula (e.g., study places*) to a three-pillar model (input, performance, innovation/development). The new formula already</p>	

	Funding formula	Funding contract	Other (e.g., Historically determined/incremental)	
Share in 2010 (or closest year available)	√√√√ (assumption based on the WB report)			<p>considers the performance pillar (particularly research performance and acquisition of external financing), which currently accounts for 6%, and the third pillar is under development. [Interviews, MoES]</p> <p>*The funding is not assigned based on the actual student numbers, but on state-planned study places allocated in each field.</p> <p>The new three-pillar model was proposed by a dedicated advisory group from the World Bank (WB) in cooperation with MoES. The WB advisory group noted that the previous HE financing model was predominantly an input-based formula, considering study places, and did not include elements focused on performance or output. [The World Bank, 2018]</p> <p>Sources: MoEs interview and World bank group (2018) System Level Funding. Retrieved (see here).</p>
Current share (in 2020 or most recent year)	√√√√ (94% base funding, 6 % performance funding)			

A1.19.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission	Education	Research	Comments and references
	<p>Part of the base funding (1st pillar):</p> <p>The number of study places specified by the State for an HEI or a college in the Bachelor's degree and vocational study programmes</p> <p>The number of study places in the Master's degree study programmes specified by the State for an HEI</p> <p>The number of study places in the Doctoral degree study programmes specified by the State for an HEI</p> <p>The number of persons who have acquired a Bachelor's degree or a professional qualification at an HEI or a college for the funds of the State budget</p> <p>The number of persons who have acquired a Master's degree at HEI for the funds of the State budget</p>	<p>Part of the base funding (1st pillar):</p> <p>The number of persons who have acquired a Doctoral degree at an institution of higher education</p> <p>The number of academic staff members with a Doctoral degree and the number of professors of art at an institution of higher education or a college</p> <p>Part of Base funding for scientific research institutions:</p> <p>Financial resources for the maintenance of the scientific institution (funding for scientific institutions only)</p> <p>Financial resources for the remuneration of a scientific staff - senior researchers, researchers and research assistants (hereinafter - the scientific staff); (funding for scientific institutions only)</p> <p>The development coefficient of the scientific institution (awarded to scientific institutions only)</p>	

2.b. Indicators mentioned classified as performance indicators	Education	Research	Comments and references
	<p>Part of the base funding (1st pillar):</p> <p>The number of people with a Bachelor's degree or a professional qualification at an institution of higher education or a college for the funds of the State budget</p> <p>The number of people with a Master's degree at an institution of higher education for the funds of the State budget (State-funded study places not included here as these are not considered performance indicators)</p>	<p>Part of the base funding (1st pillar):</p> <p>The number of people with a Doctoral degree at an institution of higher education</p> <p>The number of academic staff members with a Doctoral degree and the number of professors of art at an institution of higher education or a college</p> <p>Part of Base funding for scientific research institutions (1st pillar):</p> <p>The development coefficient of the scientific institution (awarded to scientific institutions only)</p>	

A1.19.3 General information on PBF

3.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria	Comments and references	<p>While the current performance funding accounts for about 6%, the Ministry hopes to increase it to 10% in the near future. If the intended reforms will go</p>
--	--------------------------------	--

Estimate	6%		through and available financial resources permit, it might eventually reach 20%. [Interview, MoES] <i>Source: MoES interview</i>
----------	----	--	---

3.b. Evolution of performance orientation in core funding system since 2010				Comments and references
Increased	Remained the same	Decreased	Don't know	
√				

A1.19.4 Data collection and performance monitoring

4.a. Data collection mechanisms tied to the performance-based funding system	Comments and references
All data from HE institutions are collected in the State Education Information System. The Ministry of Education and Science is responsible for the system.	

4.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system	Comments and references
	These indicators, also included in the second pillar of the funding

<p>Part of the base funding (1st pillar):</p> <ul style="list-style-type: none"> The number of people with a Doctoral degree at an institution of higher education; The number of academic staff members with a Doctoral degree and the number of professors of art at an institution of higher education or a college; Financial resources for the maintenance of the scientific institution (funding for scientific institutions only); Financial resources for the remuneration of a scientific staff - senior researchers, researchers and research assistants (hereinafter - the scientific staff); (funding for scientific institutions only); <p>The development coefficient of the scientific institution (awarded to scientific institutions only) includes:</p> <ul style="list-style-type: none"> Original scientific articles of the scientific staff published in the editions included in the Web of Science or SCOPUS databases, scientific monographs reviewed and published by the scientific staff within the previous three financing periods, and the intellectual property maintained in effect or registered abroad. The Ministry of Education and Science shall provide the scientific institutions with free of charge access to the abovementioned databases; Original scientific articles of the scientific staff, other than referred to in Sub-paragraph 10.5 of this Regulation, published in the editions included in international databases within the previous three financing periods, and the intellectual property maintained in effect or registered in Latvia; Promotional theses developed by the scientific staff in the previous financing period and defended in accordance with the laid down procedures; and Master's theses developed by the employees employed in the field of science in the previous financing period and defended in accordance with the laid down procedures. <p>Part of the performance funding (2nd pillar):</p> <ul style="list-style-type: none"> The total number of Master's students and Doctoral students employed in research as leading researchers, researchers, and scientific assistants in the previous year as well as young specialists who have obtained a Doctoral degree within the last five years at an institution of higher education (full-time equivalent - the proportion of the total number of hours worked by an employee (including annual paid leave) to the total number of working hours in the relevant financing period); The funding raised in the previous year by an institution of higher education within the framework of the implementation of the projects of the European Union Framework Programme for Research and Development (according to the definition published in the science collection of the statistical methodology 		<p>model (performance indicators), are reported in the State Education Information System or annual reports, where the information can be retrieved by the Ministry of Education and Science (MoES) for calculating the funding for the following year on an annual basis.</p> <p><i>Source: Interview, MoES</i></p> <p><i>Latvian National Laws (n.d.) see here and here</i></p> <p><i>The complete version available in Latvian version only:</i></p> <p><i>Likumi (n.d.) see here</i></p>
--	--	--

<p>of the Organisation for Economic Co-operation and Development (OECD) Frascati Manual (hereinafter - the Frascati Manual)) and in other international research project competitions;</p> <p>The funding raised and the revenue obtained from the transfer of intellectual property rights in the previous year by an institution of higher education within the framework of the implementation of research and development contract works (according to the Frascati Manual), including the research and development contract works concluded with merchants, public persons (except local governments) and other contracting authorities (e.g. natural persons, associations, foundations);</p> <p>The funding raised within the framework of the research and development contract works (according to the Frascati Manual) concluded with the local governments and local government enterprises and implemented by institutions of higher education in the previous year, local government transfers for research and development and the revenue from the transfer of intellectual property rights;</p> <p>In accordance with Codes 59, 74.10, 90.01, 90.02, 90.03 of the statistical classification of economic activities (NACE) of the European Union, the funding raised and the revenue obtained from the transfer of intellectual property rights in the previous year by an institution of higher education within the framework of the implementation of creative and artistic projects including the creative and artistic contract works concluded with merchants, public persons and other contracting authorities (e.g. natural persons, associations, foundations);</p>		
--	--	--

<p>4.c. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system</p>	<p>Comments and references</p>	<p>An independent auditor audits the data submitted in the annual reports. Often there are disputes about what constitutes research funding from the total attracted funding.</p> <p><i>Source: Survey, additional information provided by the representative from the MoES after the interview.</i></p>
<p>High administrative burden</p>		

A1.19.5 Any other comment

This template was filled using:

Representatives from the Ministry of Education and Science

Ministry of Education and Science, Latvia, interviews conducted on June 2, 2021

Representatives from the EU4ART Alliance: Art Academy of Latvia:

The Art Academy of Latvia, interviews conducted on June 10, 2021

Representatives from the FORTHEM Alliance: University of Latvia:

University of Latvia, interviews conducted on June 11, 2021

The representatives of the Alliance mentioned that the EC might consider awarding similar/same amount of funding to all EU countries. This approach would foster social cohesion by offering 'equal reward for equal work', help to avoid brain drain and reduce general discomfort that (all) Alliance partners feel when splitting the funding.

A1.20 Lithuania

A1.20.1 Context

1.a. Country name - Lithuania	<p>Lithuania has a binary system, with two types of higher education institutions: universities and colleges for applied research and professional art. The state budget is available to non-state higher education institutions and foreign higher education branches if specialist places cannot be provided in a state higher education institution.</p> <p><i>Source: Republic of Lithuania (2009) Law on higher education and research, Article 6. (see here)</i></p>
1.b. Higher education sub-sector	<p>This template focuses on state higher education institutions – universities and colleges. The same funding scheme is applied both for universities and colleges.</p>

1.c. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2010 (or closest year available)	65%	25%	10%	100%	

2020 (CHEPS/ICF survey)	58%	28%	14%	100%	Tuition fees 4. income received as tuition fees as well as income received from economic, research activities and services rendered; 3 rd party funds include: 5. funds received as competitive funding of research programmes; 6. funds received from state foundations; 7. funds received from international and foreign foundations and organisations; 8. funds received as charity under the Law on Charity and Sponsorship; 9. other funds received legitimately. ETER data based on 23 universities and colleges. 14 institutions did not disclose the data. Source: Republic of Lithuania (2016) Law of the Republic of Lithuania on Science and Studies No. Act of Amendment XI-242. (see here)
2019 (ETER data)	43%	18%	39%		

A1.20.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission.	Education	Research	Comments and references
	1. Student enrolments 2. Normative study costs (different for each study programme) 3. Target funding for most demanded specialties 4. Floor surface	1. Comparative research evaluation conducted once in five years 2. Annual formal research evaluation	

2.b. Indicators mentioned classified as performance indicators	Education	Research	Comments and references
	1. The number of students	1. Funding received from participation in international research projects 2. Funding received from R&D contracts with private establishments 3. Public funding from participation in joint R&D projects with private establishments 4. Results of evaluation of research production	

A1.20.3 Funding agreements/contracts

3.a. Main criteria used in the funding contract/agreement ranked by importance sorted by mission		Comments and references	<p>A performance agreement model based on performance indicators was introduced in 2017. At the present moment the planned reform of higher education funding in Lithuania remains at the planning stage and the system set up in 2009 through the Law on Higher Education and Research remained applicable.</p> <p><i>Caturianas, D. and Budraitis, M. (2019) 'Assessment of the ongoing higher education reforms in Lithuania', NESET, p, 6. (see here)</i></p>
--	--	-------------------------	---

A1.20.4 General information on PBF

4.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references	
Exact			
Estimate	50% (for research)		

4.b. Evolution of performance orientation in core funding system since 2010				Comments and references	
Increased	Remained the same	Decreased	Don't know		

√					
---	--	--	--	--	--

A1.20.5 Data collection and performance monitoring

5.a. Data collection mechanisms tied to the performance-based funding system	Comments and references	<i>(See here)</i>
HEIs annually provide data about student enrolment and research production to the Ministry of Education, Science and Sports. The Lithuanian Research Council is responsible for the annual evaluation of research production and once in five years organises comparative research evaluation.		

5.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system	Comments and references	<i>(See here)</i>
The number of students, Number of research publications, Number of patents, Income from national and international R&D projects, Income from R&D contracts with industry, and Number of art activities (exhibitions, concerts, etc.).		

5.c. Qualitative performance information reported by HEIs to the government in the context of the performance-based funding system	Comments and references	<i>(See here)</i>
Qualitative performance indicators are mainly related to research activities. Comparative evaluation of research units, based on peer review, is conducted every five years. Research units are ranked on a five-point scale: 5 – international leader 4 – strong international impact 3 – international impact in a limited area 2 – satisfactory national impact 1 – weak national impact 0 – no research activities		

<p>5.d. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system</p>	<p>Comments and references</p>	<p>The perceived administrative burden is high because HEIs have to collect and present a large amount of data. Most of the data has to be presented each year. Some of the research data has to be provided once in five years for comparative evaluation. The list of required research data is extensive. (see here)</p> <p>Source: Interview with a representative of the Research Council of Lithuania</p>
<p>High administrative burden.</p>		

A1.20.6 Any other comment

<p>This template was filled using:</p> <p>Interviews with representatives from :</p> <ul style="list-style-type: none"> • The Research Council of Lithuania • The Finance Department, Ministry of Education, Science and Sports • Representative from Vilnius University <p><i>(Note: There are few sources in English. Most of the documents are in Lithuanian. There are also few research publications on the topic, and the main way of gathering information in most cases is through interviews with experts.)</i></p> <p>Sources:</p> <ul style="list-style-type: none"> • Caturianas, D. and Budraitis, M. (2019) 'Assessment of the ongoing higher education reforms in Lithuania', NESET, p. 6. (see here) • Eurydice country fiche, higher education funding, Lithuania. (see here) • Jonkers, J. and Zacharewicz, T. (2016) 'Research performance based funding systems: a comparative assessment', Joint research council. (see here) • Paliokaite, A. (2014) 'ERAWATCH Country reports 2013: Lithuania. (see here)

A1.21 Luxembourg

A1.21.1 Context

1.a. Country name – Luxembourg	There are three types of higher education in Luxembourg: <ol style="list-style-type: none"> 1. Higher education provided by the University of Luxembourg (only state-funded University). 2. Short cycle provision (BTS programmes): secondary schools (<i>lycées</i>) propose vocational short-cycle programmes leading to an advanced technician diploma (<i>BTS; brevet de technicien supérieur</i>) 3. Private and cross-border provisions: a number of private or foreign institutions have been accredited to provide higher education in Luxembourg; some programmes are organised via cross-border partnerships, e. g. between foreign universities and Luxembourgish research institutes or professional chambers. <p>This fiche concentrates on funding to the University of Luxembourg as the only state-funded university.</p> <p>Source: (see here)</p>
1.b. Higher education sub-sector	

1.c. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2010 (or closest year available)	92%	2%	6%	100%	
2020 (CHEPS/ICF survey)	79.3%	0%	20.7%	100%	
2019 (ETER data)	73%	3%	24%		

Data from 2008. P.46 Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report. Enschede: CHEPS. ([see here](#))

Data for 2017. Source: p. 26 [RIO Country Report 2015: Luxembourg | EU Science Hub \(europa.eu\)](#).

1.d. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined/incremental)	
Share in 2010 (or closest year available)	√	√√√	√√ (negotiation)	
Current share (in 2020 or most recent year)		√√√ (100% as per survey)		

Data for 2008. Source: p. 48 Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). *Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report.* Enschede: CHEPS. ([see here](#))

The survey results validated this finding and reported that the main mechanism for funding is a funding contract or a funding agreement.

The core funding mechanism is based on a funding contract and the agreement only applies to the University of Luxembourg (the only public university of Luxembourg). Short cycle programme providers are public secondary schools, whose support from the government is different.

An integrated core funding budget is allocated for education and research in higher education institutions.

A1.21.2 Funding Formula

2.a. Main criteria used in the funding contract/agreement ranked by importance sorted by mission	Education	Research	Equally to Education and Research	Comments and references
	1. Learning and teaching (high importance but does not reflect performance) 2. Entrepreneurship (high importance does not reflect performance)	1. Number of relevant publications (high importance – reflect performance) 2. Number of grants (high importance reflects performance) 3. Number of theses (high importance reflects performance) 4. Number of patents (high importance reflects performance)	1. Efficient and transparent administration (high importance does not reflect performance) 2. Gender (high importance does not reflect performance) 3. Student participation (both education and research, does not reflect performance) 4. Quality assurance (high importance does not reflect performance)	
2.b Criteria classified as performance criteria	Research			Comments and references
1. Number of relevant publications (high importance – reflect performance) 2. Number of grants (high importance reflects performance) 3. Number of theses (high importance reflects performance) 4. Number of patents (high importance reflects performance)	Other criteria included in the survey are: Number of ERCs - research - high importance - performance indicator Number of doctoral students and post-docs in PPP - both education and research - high importance - performance indicator Third party financing, thereof European funding - both education and research - high importance - performance indicator			

¹⁹ The four-year plan of the University of Luxembourg is available here: https://wwwfr.uni.lu/universite/documents_officiels

2.c. Parties involved in the contract negotiation and time frame				Comments and	The funding contract is publicly available via here: (2018 – see here) and (Amendment, 2020 – see here).
<p>According to the survey, the parties involved are the Ministry of Higher Education and Research the University of Luxembourg (rector) Time period of the contract: 48 months, with possible mid-term revision.</p> <p>The performance targets and associated indicators are agreed upon between the concerned parties, namely the University and the Ministry.</p>					

2.d. Rationale of the funding authorities for using a funding contract/agreement				Comments and references	N/A
<p>According to the survey, this included:</p> <ul style="list-style-type: none"> ▪ legal obligation ▪ planning security for both sides (expectation management) ▪ transparency ▪ accountability 					

2.e. Degree to which the HEI can decide on the choice of performance targets and associated indicators				Comments and references	N/A
<p>HEIs can choose the performance targets and associated indicators included in the funding contract themselves according to the survey results.</p>					

A1.21.3 General information on PBF

3.a. Evolution of performance orientation in core funding system since 2010				Comments and references	According to the survey respondent, performance indicators were introduced in 2014. .
Increased	Remained the same	Decreased	Don't know		

√					
---	--	--	--	--	--

A1.21.4 Data collection and performance monitoring

<p>4.a. Data collection mechanisms tied to the performance-based funding system</p> <p>According to the survey, the data is collected by the University itself, especially within the framework of the annual progress report to be provided to the Ministry as funding authority.</p> <p>The University publishes an annual evaluation report of its performance indicators, in form of graphs and tables. Performance data are also included in the annual activity report of the Ministry, which is made publicly available.</p>	Comments and references	<p>The evaluations, activity reports and Key Performance Indicators collected about the University of Luxembourg are indicated here.</p>
<p>4.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system</p> <p>According to the survey, the quantitative indicators are mostly research-based indicators:</p> <ul style="list-style-type: none"> - Publication intensity - 1st quartile publications - top 10% publications - joint publications with other LIs - new ERC grants - PhD degrees awarded - patents submitted - PPP-funded doctoral candidates and postdoctoral researchers - competitive funding - national -competitive funding - international - collaborative funding - mobility ECTS - accreditation -share of female full professors. 	Comments and references	<p>These indicators are available on the website of the University of Luxembourg here (key performance indicators) - (see here)</p>
<p>4.c. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system</p> <p>According to the survey respondent, there is no administrative burden.</p> <p>(According to the respondent from the University of Luxembourg who was talking about the administrative burden in the context of the alliances, reporting is limited. The University of Luxembourg however still requires one person full-time to handle the financial administrative charges. According to calculations from the survey respondent, the administrative charge from the University of Luxembourg is 30-35% of the total costs – the interviewee recommends that we look at ISPRA which has done an in-depth study of study costs).</p>	Comments and references	

A1.21.5 Any other comment

This template was filled using:

- Interview with a representative of the University of Luxembourg, 26 May 2021
- Ministry representative declined to be interviewed based on the fact that he/she had already submitted a survey response.

The survey respondent and interviewee sent the following references/sources: :

- Ministry : <http://www.mesr.public.lu/enssup/index.html>
- Agence Erasmus : [Anefore](#) , directrice : Christine Pegel
- University : <https://uni.lu> :
 - <https://wwwfr.uni.lu/universite/presentation>
 - <https://wwwfr.uni.lu/universite/presentation/facts>
 - https://wwwfr.uni.lu/universite/presentation/etapes_cles
 - https://wwwfr.uni.lu/universite/documents_officiels (factsheets)
- Agency to finance research: <https://www.fnr.lu/>
- National agency for innovation: <https://www.luxinnovation.lu/fr/>
- Support to innovative businesses :
 - <https://guichet.public.lu/fr/entreprises/gestion-juridique-comptabilite/propriete-intellectuelle.html>
 - <https://guichet.public.lu/fr/entreprises/financement-aides/aides-recherche-developpement.html>
 - <https://guichet.public.lu/fr/entreprises/creation-developpement/autorisation-etablissement/inscriptions-agrements-specifiques/organisme-recherche-privee.html>
 - <https://guichet.public.lu/fr/entreprises/financement-aides/aides-environnement.html>
 - National society for credit and investment : <https://www.snci.lu/>

Innovation portal: <http://www.innovation.public.lu/fr/index.html>

A1.22 Malta

A1.22.1 Context

1.a. Country name - Malta	The University of Malta, the Malta College of Arts Science and Technology (MCAST) and the Institute of Tourism Studies (ITS) are the publicly-funded educational institutions providing higher education courses.
1.b. Higher education sub-sector	

1.c. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2008	95%	3%	2%	100%	
2013	83%	11%	6%	100%	
2016	81%	14%	6%	100%	
2019	79%	10%	7%	96%	

Data for 2008: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report. Enschede: CHEPS, [URL](#).

Data for 2013 and 2016 - *Source here*.

ETER data based on four HEIs.

ETER data indicate that 4% of revenues cannot be included in the categories shown here.

1.d. Share of funding mechanism type				Comments and references
	Funding formula	Funding contract	Other (e.g., Historically determined / incremental)	
<i>Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)</i>				In Malta, the funding mechanisms for determining the amount of the public operational grant for public universities is based on a negotiated funding model: This is when the grant is based on negotiations between the ministry/agency and an individual institution about the amount to be awarded and the amount is based on a budget estimate submitted by the institution. This was the situation in 1995 and 2008 based on the Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010) report.

Share in 2010					
---------------	--	--	--	--	--

A1.22.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission.	Comments and references	<p>In Malta the allocation of public research funds for higher educational institutions, government departments and research organisations does not involve performance considerations, certainly not in any formal sense. There exists no algorithm for allocation of public funds, and there is no history of institutional performance assessments to feed into such a mechanism. Funding is allocated primarily on the basis of what was allocated in previous years, and there has been no mention of changing this approach either in the national strategy or in any other document. Based on Warrington (2015). Warrington, B., 2015. RIO Country Report 2014: Malta, Editor: European Commission, Joint Research Centre, Institute for Prospective Technological Studies, Publications Office of the European Union.</p> <p><i>Source:</i> Jonkers, K. & Zacharewicz, T. (2015). Performance based funding: a comparative assessment of their use and nature in EU Member States. Report by the Joint Research Centre, EUR 27477.doi10.2791/134058</p>
---	--------------------------------	---

A1.23 Netherlands

A1.23.1 Context

1.a. Country name – The Netherlands	<p>The NL has a <u>binary</u> system: 13 public universities and 36 universities of applied sciences (UAS). In addition, an Open University, and four small denominational universities. These are all publicly funded by the Ministry of Education. There is also one private university and some other private HEIs that are not publicly funded.</p>
1.b. Higher education sub-sector	

1.b. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2010 (or closest year available)	62%	12%	26%	100%	
2019 (ETER data)	63%	13%	18%	94%	
2019 (CHEPS/ICF survey)	62%	13%	25%	100%	

Data are from DUO, the government agency responsible for implementing the laws related to funding, student enrolments, and student support.

ETER data for 2019 based 53 HEIs (universities and UAS). 6% of revenues cannot be categorised as core/3rd party funds or tuition fees.

1.c. Share of funding mechanism type				Comments and references
<i>Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)</i>				
	Funding formula	Funding contract	Other (e.g., Historically determined/incremental)	
Share in 2010 (or closest year available)	√√√√	0		
Current share (in 2020 or most recent year)	√√√	√		

In 2010, formula funding was the only mechanism driving the core funds. In 2020, after a brief experiment with performance agreements (between 2012 and 2016), a part of the core funding of research universities (and also UAS) is driven by a contract (a Quality agreement). The Quality Agreement covers some 2,4% of the universities' core funds. After 2020, this share will gradually grow and the Quality Agreements funds will annually grow – from € 145m in 2021 to € 217m in 2024.

A1.23.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission.	Education	Research	Comments and references	<p>The indicator ‘students enrolled in their stipulated time to a degree’ signifies that universities only receive public funding for students who have been enrolled for less than the normative time to degree (officially, a Bachelor degree in a university takes three years to complete and a master’s degree takes one to two years).</p> <p>For student enrolments and degrees, there are three discipline weights to reflect the different costs per programme. However, Ph.D. degrees all have the same weight.</p> <p>Bachelor’s and Master’s degrees have the same weight in the Education funding formula, but in the Research funding formula, the Master’s degrees have a double weight.</p> <p>Apart from the indicators listed here, the funding formulas for Education and Research also include fixed components. The sizes and shares of these fixed allocations differ across universities. They are based on historical reasons and discretionary policies. On average, fixed allocations constitute 30% of the education budget and two-thirds of the research budget of the universities. (For the UAS, the share of the fixed allocations differs substantially from that of the research universities.)</p>
	<p>1. Students enrolled in their stipulated time to degree</p> <p>2. Diplomas awarded (Bachelor’s and Master’s degrees)</p>	<p>1. PhD degrees awarded</p> <p>2. Diplomas awarded (Bachelor’s, Master’s)</p>		
2.b. Indicators mentioned classified as performance indicators	Education	Research	Comments and references	<p>See comment above (2.a.).</p>
	<p>1. BA and MA degrees</p>	<p>1. PhD degrees</p> <p>2. BA and MA degrees</p>		

A1.23.3 Funding agreements/contracts

3.a. Main criteria used in the funding contract/agreement Criteria ranked by importance sorted by mission	Education	Comments and references	<p>The quality agreements specify plans for the university to use its 'study advance funds', received from the Ministry of Education. The funds are invested in the quality of education and cover the period 2019 to 2024. Each higher education institution was expected to sign a quality agreement in the years 2019-2020.</p> <p>A sector-wide agreement, signed in 2018 between the Education ministry and the Association of universities in the Netherlands, laid out the six themes (shown in the table) on which the quality agreements focus.</p> <p>In 2015, the Dutch students support system was drastically reformed. Student grants were abolished and replaced by student loans. The public funds that were freed up as a result of this (known as study advance funds) are reinvested in education and are channelled to the higher education institutions (i.e. no longer to the students). Study advance funds are to be used for improving the quality of education along with the six criteria.</p> <p>There is no priority: all criteria are equally important. Plans for the use of the funds have to be approved by the Dutch Accreditation Agency. Some institutions are still in the process of getting their plans approved. However, all of them did receive their study advance funding.</p> <p>The budget attached to a quality agreement is the institution's share in the total study advance budget - with the share depending on the relative size of the institution's student enrolment. Quality agreement funds are added to the institution's core funding – its block grant.</p>
	<ol style="list-style-type: none"> 1. More intensive and small-scale education (educational intensity). 2. Educational differentiation, including talent development within and outside the study 3. Further professionalization of teachers (teacher quality). 4. Appropriate and good teaching facilities. 5. More and better guidance of students. 6. Study success, including throughput, accessibility, and equal opportunities. 		
3.b	Education	Comments	<p>The criteria are related to education quality and most of them focus on the process side of teaching and learning – not on the output (outcome, or impact) side.</p>

	<p>1. All six criteria listed above (in 3.a) are seen as reflecting intended performance</p>	<p>However, they may be perceived as performance criteria, because not meeting the intended criteria may have financial consequences for the higher education institution.</p> <p>The are no harsh financial consequences attached to the final evaluation of the quality agreements that takes place after the year 2024. The institutions are expected to use the results of a mid-term evaluation (taking place in 2022) to re-assess their strategy.</p> <p>Quantitative indicators can play a role in the assessments, but their role is determined by the higher education institution itself.</p>
--	--	--

3.c. Funding criteria in the contracts linked to the goal of internationalisation	Education-related internationalisation criteria	Research-related internationalisation criteria	Internationalisation criteria that are equally related to education and research	Engagement (3 rd mission, entrepreneurship, etc.) -related internationalisation criteria	Comments and references
N/A	N/A	N/A	N/A	N/A	<p>There are no criteria that relate to the goal of internationalisation. As part of the quality agreement, some institutions may decide to pay attention to issues like an international classroom, or instruction language, but there is no criterion that prescribes the institutions to do so.</p>

3.d. Parties involved in the contracts negotiation and time frame

Each higher education institution draws up a quality plan and submits this for an evaluation to the Dutch Accreditation agency (i.e. the Dutch-Flemish Accreditation Organization NVAO). This involves institutional site visits by a panel. The accreditation agency provides its advice to the minister. An institution only qualifies for 'study advance funding' if its quality plan has been approved by the minister. The institutions' quality plans refer to the period 2019-2024. The institutions' internal stakeholders (students, councils, etc) are expected to be involved in drawing up the quality plan, as the plan has to be sufficiently supported by internal and relevant external stakeholders.

3.e. Rationale of the funding authorities for using a funding contract/agreement

The performance agreements (2013-2016) were aimed at:

Improving the quality of education in higher education institutions (HEIs) in terms of, among other things, indicators of students' success and other indicators of quality;

Enhancing programme differentiation within and between HEIs; encouraging HEIs to exhibit clearer education profiles and focused research areas. This should produce a higher level of diversity in the higher education system;

Strengthening the focus of HEIs on their valorisation function (i.e. knowledge exchange, research commercialization, promoting entrepreneurship, regional engagement).

Not achieving targets implied that an institution risked losing part of its education funds.

The quality agreements (2019-2024) are aimed at raising the quality of education along the six areas shown above (under 3.a). They are focusing on education alone (not on research, or third mission activities) and are a step away from the quantitative indicators used in the performance agreements. Because the funds connected to the quality agreements are connected to the earlier student grants system, the students are placed in the centre of the agreements.

Not achieving the intended quality improvements laid out in the quality agreements is not meant to have immediate financial consequences for the institution in question. If there is an insufficient indication of progress, money can be withheld from the institution, but in principle, the funds will be channelled back to the institution's teaching staff in the form of scholarships to help staff improve their pedagogical skills.

3.f. Degree to which the HEI can decide on the choice of performance targets and associated indicators

During the performance agreements experiment (2013-2016), there were **seven mandatory indicators** to be used by higher education institutions to specify their quantitative ambitions with regard to improving study success and educational quality. Apart from these indicators, they could use other (self-defined) indicators (quantitative, qualitative) to specify further ambitions.

For the quality agreements (post 2019), there are **no prescribed indicators** – only qualitative targets. The institutions specify their own plans, along the six aspects shown above. They are free to make use of indicators (quantitative, qualitative) and there is no direct connection between ambitions (indicators etc) and funding. However, in their reporting they will have to present evidence on progress towards goals.

A1.23.4 General information on PBF

5.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references
Exact	26%	

5.b. Evolution of performance orientation in core funding system since 2010				Comments and references
Increased	Remained the same	Decreased	Don't know	
√				<p>The funding formula that existed in 2010 has been augmented – first, with a performance agreement (2012-2017) and then a quality agreement (2019-2024).</p>

A1.23.5 Data collection and performance monitoring

6.a. Data collection mechanisms tied to the performance-based funding system
<p>The information that feeds into the funding formula (i.e. student numbers; degrees, PhDs) is collected by the higher education institutions and reported to the government body (DUO) responsible for determining the public funding. Data are checked by the accountant of the higher education institution. Data is reported annually.</p> <p>The information related to the quality agreements is included in reports prepared by the higher education institutions and communicated to the accreditation agency (NVAO) that monitors and evaluates the quality agreements. The accreditation organisation approves the quality agreement and carries out two evaluations during the period 2019-2023. These are the mid-term evaluation in 2022) and the final evaluation (in 2023/24, upon completion of the agreements).</p>

<p>6.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system</p> <p>Student enrolments and degree completions (BA, MA, PhD). However, only the latter are regarded as performance information.</p>	Comments and references	N/A
<p>6.c. Qualitative performance information reported by HEIs to the government in the context of the performance-based funding system</p> <p>The information related to the quality agreements consists primarily of qualitative information prepared by the higher education institutions. There is no fixed format or a list of indicators for this information.</p>	Comments and references	N/A
<p>6.d. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system</p> <p>A moderate administrative burden. Most information is information that the higher education institution needs & collects anyway for its operations.</p>	Comments and references	N/A

A1.23.6 Any other comment

This template was filled using:

An article that discusses the impact of the Dutch performance agreements:

Jongbloed, B., F. Kaiser, and D.F. Westerheijden (2019), Improving study success and diversity in Dutch higher education using performance agreements. *Tertiary Education and Management*, pp. 1-15. <https://doi.org/10.1007/s11233-019-09055-8>.

Websites: (some are in Dutch):

https://vsnu.nl/en_GB/funding-of-universities.html

<https://www.rijksoverheid.nl/onderwerpen/financiering-onderwijs/financiering-hoger-onderwijs>

<https://wetten.overheid.nl/BWBR0024005/2021-01-01>

<https://www.rathenau.nl/en/science-figures/investments/income-and-expenditure-universities-and-higher-education-institutions-1>

https://www.duo.nl/open_onderwijsdata/databestanden/onderwijs-algemeen/financiele-cijfers/financiele-gegevens-per-bestuur.jsp

Interviews were carried out with:

ECIU Alliance

Ministry of Education

Association of Universities in the Netherlands (VSNU)

A1.24 Poland

A1.24.1 Context

1.a. Country name – Poland	<p>There are two main types of HEIs in Poland: university-type HEIs (<i>uczelnia akademicka</i>) and non-university HEIs (<i>uczelnia zawodowa</i>). More specifically:</p>
1.b. Higher education sub-sector	<p>A university-type HEI conducts research activity and has the A+, A or B+ research rating in at least one discipline of science or arts (ratings are awarded based on an external evaluation of the quality of research.) It may provide first-cycle programmes leading to a bachelor's degree (<i>licencjat or inżynier</i>) (ISCED 6), second cycle and/or long-cycle programmes leading to a Master's degree (<i>magister</i>) (ISCED 7), and doctoral education/training (ISCED 8).</p> <p>A non-university HEI offers programmes responding to the needs of the socio-economic environment and does not fulfil the criteria for a university-type HEI. It provides first-cycle programmes and may also provide second- and/or long-cycle programmes. This type of institutions also includes HEIs earlier classified as schools of higher professional education (<i>wyższa szkoła zawodowa</i>), which are authorised to provide only first-cycle programmes. Non-university HEIs offer only practically oriented programmes.</p> <p>In order to be authorised to provide first-, second- and/or long-cycle programmes, both university-type and non-university HEIs are required to comply with identical requirements set out in <i>Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 27 września 2018 r. w sprawie studiów</i> (Regulation of the Minister of Science and Higher Education of 27 September 2018 on degree programmes).</p> <p><i>Source: Eurydice (2020). Poland. Types of Higher Education Institutions. (see here)</i></p>

1.c. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
					<p>For year 2011:</p> <p>Operational grant from public authorities (<i>dotacje</i>) - 68%</p> <p>Tuition and other student fees – 15%</p>

2011	68%	15%	17%	100%	<p>3rd party funds (NCN,NCBR, foreign and domestic co-financing, local government units, projects and programs of the Minister, funds for co-financing scientific cooperation with foreign countries) – 17%</p> <p><i>Source: Input from Budget and Finance Department, Ministry of Education and Science</i></p>
2016 (or closest year available)	80%	18%	2%	100%	
2019 (CHEPS/ICF survey)	82%	18%	2%	100%	
2019 (ETER data)	84%	7%	9%		<p>For year 2016:</p> <p>Government and taxpayers – 80% (incl. 16% EU)</p> <p>Students and households – 18%</p> <p>Other private units – 2% (firms, voluntary giving)</p> <p><i>Source: OECD EAG data (see here) and MNI SW for the EU</i></p> <p>For year 2019:</p> <p>Operational grant from public authorities (<i>subwencja, dotacje</i>) - 82%</p> <p>Tuition and other student fees – 18%</p> <p>3rd party funds (NCN,NCBR, foreign and domestic co-financing, local government units, projects and programs of the Minister, funds for co-financing scientific cooperation with foreign countries) – 2%</p> <p><i>Source: Input from Budget and Finance Department, Ministry of Education and Science</i></p> <p>ETER data based on 129 HEIs. Data for some public HEIs are missing.</p>

1.d. Share of funding mechanism type				Comments and references
<p><i>Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)</i></p>				
	Funding formula	Funding contract	Other (e.g., Historically determined / incremental)	<p>Law on Higher Education and Science (The Act of July 20, 2018) introduced a new form of financing - a subsidy, which was not available to universities before that. Both the number of subsidies for the maintenance and development of teaching and research potential and subsidies for student benefits or support for people with disabilities at the university is calculated based on algorithms.</p> <p><i>Source: (see here)</i></p>

Share in 2010 (or closest year available)	√√√		√√	In 2020, the formula accounted for 55% of the core funding (teaching and research) in 2019 – 50%. The remainder, 45% and 50%, respectively, was historical (based on a transfer rate) [same for university and non-university HEIs]. By 2024, the historic funding allocation (<i>stała przyniesienia</i>) will be reduced to 25% due to a gradual reduction of the historically determined allocation base. For comparison, according to data 2015 EUA report, a historical allocation 6 years ago amounted to 65% of the previous year's grant received by universities. Sources: for 2010 (see here), 2015: EUA (see here), 2010: (see here).
Current share (in 2020 or most recent year)	√√√		√√	

A1.24.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission.				Comments and	Data in the left concerns public HEIs. Subsidies for the maintenance and development of teaching and research potential, as well as subsidies for student benefits or support for persons with disabilities at the university are calculated based on algorithms. The algorithms
Education	Research	Equally to Education and Research	Other		

<p>University/ Universities in excellence initiative*</p> <p>1. Students (34%/28%): number of students in FT programs, cost indices of fields of study, and student to staff ratios</p> <p>2. Internationalisation (5%): number of students (inc. doctoral) participating in exchange, weighted as follow: 1 for outgoing, 2 for incoming exchange (>3 months), 4 to 6 for incoming degree mobility</p> <p>Non-university HEIs:</p> <p>1. Students (50%): number of students on FT programmes (weighted 0.6 for second-cycle), cost indices of field of study,</p>	<p>University/ Universities in excellence initiative*</p> <p>1. Research activity (25%): number of units given a grade higher than a C* in the research evaluation exercise (conducted every 4 years), weighted by grade; cost indices of the disciplines concerned; and number of full-time equivalent staff conducting research in the disciplines concerned</p> <p>2. Doctoral training (1%/2%): cost indices and number of doctoral students (excluding non-Polish and those employed as academic staff)</p> <p>3. R%D (10%): R&D internal expenditure</p> <p>4. Projects (0%/5%): number</p>	<p>University/ Universities in excellence initiative*</p> <p>1. Staff (25%): average number of academic staff weighted by title (seniority) and number of non-Polish University or Full Professor who taught at least 60 hours.</p> <p>Non-university HEIs:</p> <p>1. Staff (40%): average full-time equivalent number of academic staff weighted by title (seniority)</p>	<p>University/ Universities in excellence initiative*</p> <p>Non-university HEIs:</p> <p>1. Income (5%): relationship between the operating revenue and various grants and subsidies</p>	<p>determining the method of dividing the subsidy funds are determined separately by i) the minister of science and HE for the public universities he supervises and for non-public academic universities, and ii) other ministers - for the universities they supervise.</p> <p>The widest stream of funding for both teaching and research activities is held by public academic universities, while Public vocational universities do not receive for such activities.</p> <p>The algorithm is different for public, non-public and vocational schools. The allocation algorithm for academic universities is based on 7 criteria: students, staff, internationalisation, research, doctoral training, research and development, and project. Using these criteria, 55% of the grant amount was distributed in 2020. For non-university HEIs, the allocation algorithm is based on 4 criteria: student, staff, graduate, income.</p> <p>Subsidy depends largely on the amount granted in the previous year. It is influenced by the historical funding (so-called carry-over constant or transfer rate, <i>stała przeniesienia</i>), the value of which in 2020 was equal to 0.45. It will decrease in the coming years, until it reaches 0.25 in 2024.</p> <p>The amount of subsidy calculated according to the algorithm and transferred to public universities and non – university HEIs may not be lower than 98% and higher than 106% of the amount awarded in the previous year, under comparable conditions.</p> <p>The weightings are slightly different for public university-type HEIs supervised by the Minister, with which the Minister has concluded agreements under 'The Excellence Initiative: research higher education institution' (<i>Inicjatywa doskonałości – uczelnia badawcza</i>). In this case, higher weightings are assigned to the doctoral training criterion (0.02) and the project criterion (0.05), and a lower weighting to the student criterion (0.28).</p> <p><i>Source: EACEA (see here) and (here)</i></p> <p>Financing of universities depends on the category obtained: A and A + categories receive the highest benefits, while C is not entitled to such subsidies. Hence, universities intensively prepare to qualify for higher categories.</p>
---	--	--	--	--

<p>student to staff ratio</p> <p>2. Graduates (5%): number of graduates and relative graduate unemployment rates</p>	<p>of research projects, with higher weights for international and Horizon 2020 projects, as well as when HEI is only institution or lead in consortium.</p>			<p><i>Source: General Council for Higher Education</i></p> <p>In addition to subsidies and the earmarked subsidy for teaching activities, in 2019 and 2020, the minister responsible for the budget, on the request of the minister responsible for higher education and science, could transfer treasury securities to a public university to increase the basic fund or to an international scientific institute to increase the statutory fund.</p> <p><i>Source: Article 310 (1) of the Act of July 3, 2018, Provisions introducing the Act - Law on Higher Education and Science</i></p> <p>Universities also receive funds in the form of a subject subsidy for material support for students and doctoral students, maintenance of scientific and research equipment or a research stand, unique in the country and a special IT infrastructure, tasks related to providing disabled people with conditions for full participation in the admission process studies, to doctoral schools, education at studies and doctoral schools or conducting scientific activity, and funds for investments in the form of a targeted subsidy. Subsidies for the maintenance and development of teaching and research potential, and subsidies for student benefits or support for people with disabilities at the university, are calculated on the basis of algorithms, in accordance with the principles set out in the relevant regulations.</p> <p><i>Source: Input from the Ministry of education and Science</i></p> <p>There was also a corrective subsidy introduced for salary increases for public university staff.</p> <p><i>Source: Interview (General Council for Higher Education).</i></p> <p>In line with the most recent reform (“Constitution for Science”, started in 2018) the following scientific categories are awarded to individual disciplines: A +, A, B +, B or C. These categories determine the funds that research units receive from the state budget.</p> <p><i>Source: (see here)</i></p>
--	--	--	--	---

2.b. Indicators above classified as performance indicators			Comments
Education	Research	Other	
			Teaching funds are primarily input-oriented and research funds are mostly output-oriented. (see here)

<p>Non-university HEIs:</p> <p>1. Graduates: number of graduates and relative graduate unemployment rates</p>	<p>University/Universities in excellence initiative*</p> <p>1. Research activity: number of units given a grade higher than a C in the research evaluation exercise, weighted by grade</p> <p>2. Projects (0%/5%): number of research projects, with higher weights for international and Horizon 2020 projects, as well as when HEI is only institution or lead in consortium.</p>	<p>Non-university HEIs:</p> <p>1. Income: relationship between the operating revenue and various grants and subsidies</p>	<p>The changes introduced with the 2018 reform and the research subsidy are based on a performance-based financing system. The university must demonstrate concrete results. However, the didactic subsidy is based on the components of the process: i.e., the number of students, the number of employees, in the quantitative and some relational dimensions, e.g., the number of students per employee, the number of professors and lecturers. Each of these elements has a different weight, but it is not performance-based financing.</p> <p>Another change towards PBF is a competition concluded in 2019 for the creation of so-called research universities. Ten such research universities were selected and received an additional grant/subsidy for obtaining the status of a research university.</p> <p><i>Source: Interview (General Council for Higher Education).</i></p> <p>An academic university can join the competition under the "Excellence Initiative - Research University" programme, if inter alia, it: i) conducts research in at least 6 disciplines in which the quality of scientific activity has been evaluated, and has the scientific category A + or A in at least half of these disciplines, ii) does not have a B or C academic category, iii) runs a doctoral school, iv) does not have a negative program grade.</p> <p><i>Source: Art. 388 sec. 1 Law on higher education and science (Journal of Laws of 2021, item 478).</i></p> <p>Individual HEI employees can apply for grants at the National Science Center, which finances basic research.</p> <p><i>Source: Interview (General Council for Higher Education).</i></p> <p>Activities with a particular impact on the amount of subsidy (the most frequently repeated answers) in the Supreme Audit Office's survey:</p>
--	--	--	---

			<p>Academic universities: a) employing academic teachers with a postdoctoral degree or the title of professor (71.76% of responses), b) admitting more students to full-time studies (50.59%), c) employing foreign academic teachers (35.29%)</p> <p>Non-academic (vocational) universities: admission of more students to full-time studies (88.49%), b) employment of academic teachers with a postdoctoral degree or the title of professor (69.23%).</p> <p><i>Source: Supreme Audit Office (2021). Information on the audit results: FINANCING OF HIGHER EDUCATION. (see here)</i></p>
--	--	--	--

A1.24.3 General information on PBF

3.a. Evolution of performance orientation in core funding system since 2010				Comments and references
Increased	Remained the same	Decreased	Don't know	
√				

A1.24.4 Data collection and performance monitoring

4.a. Data collection mechanisms tied to the performance-based funding system	Comments and references	
<p>The data for the distribution of subsidies are collected primarily in the Integrated System of Information on Science and Higher Education (POL-on system) and provided by competent institutions.</p> <p>Data collected on academic universities include:</p> <ul style="list-style-type: none"> The number of students, submitted via the POL-on system on the S-10 forms of the Central Statistical Office The number of doctoral students, participants of doctoral schools and average employment submitted The number of students and doctoral students coming to the university and leaving to university abroad as part of short-term international exchange, the number of non-Polish citizens holding the title of professor or employed as a university professor at another university, foreign university or foreign scientific institution or as an institute professor in PAN institute, research institute or international institute that conducted at least 60 hours of teaching in the previous academic year, as well as the number of projects implemented by IDUB universities in 2020 under the framework program for research and innovation (2014-2020) "HORYZONT 2020" The number of students and doctoral students who are not Polish citizens, who completed a full cycle of education in the previous academic year The number of research workers conducting research activity who submitted a declaration authorizing the entity employing them to be included in the so-called N numbers Expenditure on research and development activities The number of projects implemented by IDUB universities, financed or co-financed by the National Center for Research and Development, and the National Science Center The number of foreign students and doctoral students, completing a full cycle of education, receiving a scholarship granted by the Polish National Agency for Academic Exchange, or studying on the basis of international agreements or other agreements referred to in art. 2 clause 3.1 of the Act of July 7, 2017, on the Polish National Agency for Academic Exchange. <p>Data collected on public vocational universities include:</p> <ul style="list-style-type: none"> The number of students, submitted via the POL-on system The average employment submitted via the POL-on system 		

<p>Financial income - shown by vocational schools in the report on the implementation of the material and financial plan</p> <p>The number of graduates of first-cycle studies at public vocational universities and the relative unemployment rate among graduates of first-cycle studies at public vocational universities from the National System of Monitoring the Economic Fate of University Graduates.</p> <p>Data collected on non-public academic universities include:</p> <p>The number of research workers conducting research activities who submitted a declaration authorizing the entity employing them to be included in the so-called N numbers</p> <p>Participants of doctoral schools submitted via the POL-on system</p>		
---	--	--

<p>4.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system</p>	<p>Comments and references</p>	<p>Source: Input from the Ministry of Education and Science.</p>
<p>Projects</p>		<p>Source: Input from the Ministry of Education and Science.</p>
<p>4.c. Qualitative performance indicators reported by HEIs to the government in the context of the performance-based funding system</p>	<p>Comments and references</p>	<p>Source: Input from the Ministry of Education and Science.</p>
<p>R&D, Income, Research activity and Graduates.</p>		

<p>4.d. The perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system</p>	<p>Comments and references</p>	<p>The Minister responsible for higher education, monitors compliance of the activities of HEIs with the law and proper use of public funds. The Rector of each HEI provides the following documents to the planning-and-reporting database in the POL-on system (the national information system for science and higher education): the HEI's activity and financial plans; reports on the implementation of activity and financial plans; reports on the use of subsidies and grants; and annual financial reports of the HEI examined by an audit firm. The range of detailed data and the procedure and timeframes for inputting, updating, storing and removing data are set out by the minister in a Regulation.</p>
<p>High administrative burden</p>		<p><i>Source: (see here)</i></p> <p>Administrative costs related to the processing of data, needed for the algorithm were not compensated. However, the National Center for Research and Development (NCBiR) had certain programs devoted to this and universities could apply for grants to implement various solutions. The introduction of the new algorithm and the calculation of points requires extensive computerisation of the university. There are so many changes that the introduced systems do not reduce administrative costs because there were too many of them.</p> <p><i>Source: Interview (General Council for Higher Education).</i></p>

A1.25 Portugal

A1.25.1 Context

1.a. Country name - Portugal	<p>The Portuguese higher education system is binary and consists of public and private universities and polytechnics. It also includes five public military institutions and an open university. The HE system was planned to have a clear binary line, organised by areas of conceptual knowledge (universities) and professional knowledge (polytechnics). However, 'in the decades since the inception of its binary system, the missions of Portugal's higher education institutions have become overlapping, and less productively differentiated than is possible' (OECD, 2019).</p>
1.b. Higher education sub-sector	<p>The Ministry of Science, Technology and Higher Education (MCTES) is responsible for higher education policies and funding.</p> <p>The Portuguese Foundation for Science and Technology (FCT) is the funding agency under the remit of the MCTES. The FCT funds research at research unit, project and individual researcher levels. Therefore, FCT research funds are not directed at HEIs. Most HEIs have research centres, but that is not the case for all. On the one hand, polytechnics have a smaller coverage of units, since their engagement with research is more recent and limited (and their Faculty used to be affiliated with units based in Universities). On the other hand, there are a few large units that are linked to Universities, but have legal, financial, and management autonomy.</p> <p>This template is filled for the whole system – universities and polytechnics.</p>

1.d. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other fees	3 rd party funds	Total	
2010 (or closest year available)*	70%	25%	5%	100%	
2020 CHEPS/ICF survey)**	60%	Not known (most likely lower than 2010)	Not known (most likely higher than 2010)	100%	
2019 (ETER data)	71%	18%			

*2012-13 data from Claeys-Kulik, A. & Estermann, T. (2015).

**Higher education is funded from the state budget (60%) supplemented by tuition fees, European funds and institutionally raised funds.

Source: OECD. Education policy outlook. Country profile Portugal. (2020)

ETER data (for 2019) are based on 34 public universities and polytechnics only.

For 2020, we do not have readily available information on the share of funding. However, between 2010 and 2020 there have been some trends that changed the share. These trends were identified in our interviews.

- Large reduction of operational funding after 2010, stemming from the financial crisis (mainly due to restrictions in public finances and cuts in salaries, the latter having been reversed).
- HEIs and government shifted funding efforts towards third party funding. This was allowed by the increase in funding opportunities, mainly fostered by European funding programs (e.g., Erasmus, Horizon 2020, Cohesion Funds, European Alliances).
- Reduction of tuition fees in both Universities and Polytechnics starting from 2018, which was compensated with an increase in the operational grant.

			11%		
--	--	--	-----	--	--

1.e. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined / incremental)	
Share in 2010 (or closest year available)*		√	√√√√	
Current share (in 2020 or most recent year)**		√ (2% if all objectives are fulfilled)	√√√√	

There was a funding formula in Portugal, which was introduced in 1994 and revised a few times subsequently. The last version dates from 2006. However, after 2009, the formula was not updated to calculate the funding, which was rather incremented automatically, rendering the “performance-based” aspect of the formula obsolete.

Portugal has been consistently overvalued in official reports in terms of its “performance-based” status due to the existence this formula, because governments claim this as a performance-based attribute. But in practice, it is not the case, since the current allocation is not even aligned with input criteria (such as enrolments).

There are also claims of lack of transparency, since the formula is not publicly known, and some institutions might have received more or less funding comparing to what they should have been given according to that formula and its annual increments. Some factors, like the need for survival of the institutions and political influences are perceived as having shaped the amount of funding distributed in the sector.

There are also contracts between the government and the Higher Education Sector. Three contracts have been signed since 2006: These contracts were for the funding periods of 2010, in 2016-2019 and most recently, in 2020-2023. These contracts had the goal to stabilize funding in Higher Education Institutions, and for the government to give the general objectives that Higher Education Institutions should pursue.

However, these contracts can hardly be considered as performance-based funding, since:

- The goals were defined at the system level (subsystem in 2016-2019), and not at the institutional level.
- There were no signs of direct relationship between the fulfilment of such goals and the amount of funding received (no evidence of monitoring).

					<ul style="list-style-type: none"> It is unclear how additional funding will be distributed to each institution if the goals are attained.
--	--	--	--	--	---

A1.25.2 Funding agreements/contracts

3.a. Main criteria used in the funding contract/agreement ranked by importance sorted by mission	Education	/	Comments and references	<p>These contracts exist and have been signed since 2006. They were for the funding periods of 2010, in 2016-2019 and most recently, in 2020-2023. These contracts had the goal to stabilize funding in HEIs, and for the government to put forward general objectives for the system.</p>
	Research	/		<p>However, the contracts are not performance-based funding, since:</p> <ul style="list-style-type: none"> The goals that were defined were at the system level (subsystem level in 2016-2019 and 2020-...), and not at the institutional level. There were no signs of direct relationship between the fulfilment of such goals and the amount of funding received at the institutional level (no monitoring thus far).
	Equally to Education and Research	/		<p>The four main challenges that were posed for the system in 2020-2023 are:</p>
	Engagement (3 rd Mission)	/		<p>1 – To widen participation in Higher Education in line with a knowledge-based society</p> <p>2 – To diversify and specialize the process of teaching and learning in Higher Education, by intensifying R&D activities</p> <p>3 – Provide better employment, by fostering a higher integration between Education, Research and Innovation and firms and public administration.</p> <p>4 – To reinforce and to expand Higher Education and R&D activities' internationalization.</p>
	Other	/		<p>The results of the previous performance contract (2016-2019) were audited by “Tribunal de Contas”, the Supreme Audit Institution in Portugal, who reported that:</p> <ul style="list-style-type: none"> The funding did not occur according to what is predicted in the law, since formula funding was not applied Such funding system did not promote efficiency, quality or excellency

			<ul style="list-style-type: none"> • The contract did not guarantee funding stability and long-term predictability • The additional funding received for goal attainment was not announced and not transparent to the HE system <p>References: Performance Contract 2020-2023 and Audit to the Performance Contract 2016-2019.</p>
--	--	--	--

A1.25.3 Other funding systems

4.a. System in place if there is no formula or contract	<p>There was a funding formula in Portugal, which was introduced in 2006, that served as a basis for the amount of funding attributed to institutions. However, in subsequent years, this value was not recalculated, and rather incremented automatically, rendering the “performance-based” aspect of the formula useless.</p> <p>Portugal has been consistently overvalued in official reports in terms of its “performance-based” status due to the existence of this formula, because governments claim this as a performance-based attribute, but in practice it is not the case. HEIs receive core public funding for operations on a historical basis that is subsequently subject to negotiations and subject to mid-year budget reductions in budgets to balance public accounts. The fact that Portuguese HEIs are highly dependent on this type of funding exacerbates the problem of having a funding system that is not dependent on Performance. However, its reliability issues should be tackled first.</p> <p>Research Units funded from FCT are evaluated every 5 years (though there has been some irregularity in those time intervals). An international panel per field of study evaluates each Research unit and attributes a qualitative score (usually between “excellent” and “poor”). Depending on such score, the number of researchers and the field of study of the research unit, those units receive funding for the next 5 years. If there is a rigid formula to allocate such funding, that is unknown. However, the amount of funding received by each unit is publicised after the evaluation. In addition, there are specific funding programs for projects, PhD grants and other specific purposes.</p>	Comments and references	We refer in this section to the actual attribution of funding in the Portuguese HE System.
4.b. Inclusion of performance-related elements	Remotely. Since the initial amount was based on the formula, which has some performance components. However, since this is later negotiated and adjusted frequently – as referred to in this survey, the performance element is not entirely clear and is blurred with these ad-hoc changes.	Comments and references	/
4.c. Criteria in the funding system linked to the goal of internationalisation in higher education	/	Comments and references	On the interviews, and as a part of University Alliances, the government promised PhD Grants to the institutions involved. However, these have not been allocated thus far.

A1.25.4 General information on PBF

5.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references
Exact	/	
Estimate	0%	

There is no explicit connection between the performance of the institution and the amount of funding it receives from the government budget.

5.b. Evolution of performance orientation in core funding system since 2010				Comments and references
Increased	Remained the same	Decreased	Don't know	
	√			

As discussed, 2% on top of what was given to the government budget is given as an extra amount if the system fulfils the goals that are stated in the contract. However, this can hardly correspond to an actual increase in the amount of funding received by “performance orientation” in the country’s core funding system.

Reference: [Performance Contract 2020-2023](#).

A1.25.5 Data collection and performance monitoring

6.a. Data collection mechanisms tied to the performance-based funding system	Comments and references
	Nothing specific on data collection mechanisms tied to the funding systems has been identified so far. However, the OECD (2019) report highlighted concerns about the 'crowded and fragmented strategic landscape' of the higher education system – lacking in an overarching national strategy in place to provide a vision and guide the

/		<p>higher education, research and innovation system in line with national priorities. This should be explored through the interviews but could imply difficulties in data collection, monitoring and evaluation.</p> <p>To this effect, the 2019 (2019) report recommends the development and monitoring of a national strategy together with the establishment of 'an analytic unit drawn from ministries responsible for the strategy's development and implementation should be established. This unit should provide ministers a detailed report every two years. These reports should inform the process of periodic revision of the national knowledge and innovation strategy, every four years, for example. The monitoring of public expenditure related to the strategy would be facilitated by the creation of a specific budget category in national accounting protocols, consolidating spending on Higher Education, R&D and Innovation.</p> <p>To check whether the system goals were completed in the abovementioned performance agreements, the information is collected by the National Rectors' Conference for the Universities and by the Portuguese Polytechnics Coordination Council for the Polytechnics. However, as discussed previously, this is not performance-based funding. Nevertheless, this shows there is some effort and background in collecting data for funding purposes.</p>
---	--	---

<p>6.d. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system</p>	<p>Comments and references</p>	<p>The Government survey points to a moderate administrative burden. It refers to the administrative data that HEIs send to the statistical authorities in Higher Education, such as the number of students and completion rates. However, it is not linked directly or straightforwardly to the amount of funding that is received by the institutions.</p>
<p>Moderate administrative burden.</p>		

A1.25.6 Any other comment

This template was filled using:

- Claeys-Kulik, A. L., & Estermann, T. (2015). Define thematic report: performance-based funding of universities in Europe. European University Association, 58.
- OECD (2019), OECD Review of Higher Education, Research and Innovation: Portugal, OECD Publishing, Paris. <https://doi.org/10.1787/9789264308138-en>
- [Performance Contract 2020-2023](#).
- OECD. Education policy outlook. [Country profile Portugal](#). (2020)
- [Audit to the Performance Contract 2016-2019](#).

Interviews:

- Representatives from the Portuguese Rectors' Conference (CRUP) - 27th of May 2021.
- Portuguese Polytechnics Coordinating Council (CCISP) - 31st of May 2021.
- Polytechnic Institute of Cávado and Ave.

A1.26 Romania

A1.26.1 Context

1.a. Country name - Romania	Romania <u>does not have a binary</u> higher education system. The university system encompasses:
1.b. Higher education sub-sector	<p>54 state-run public institutions. These are all publicly funded by the Ministry of Education and Research (Ministerul Educației și Cercetării).</p> <p>38 recognised and accredited private HEIs and 9 recognised and provisionally authorised private HEIs. These obtain their funding through tuition fees and sponsoring. – see here</p> <p>This template focuses on the publicly funded HEIs. The indicators included in the formula are the same for all higher education institutions in the country (confirmed by survey respondent).</p> <p>Source for current list of HEIs in Romania, see here</p>

1.c. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2008	70%	25%	5%	100%	
2019 (CHEPS/ICF survey)	~78%	~15%	~8%	100%	
2016 (ETER data)	59%	17%	23%	99%	

Data for 2008 is extracted from p.310 of Vasilache, S., József, T., & Dima, A. M. (2012). HIGHER EDUCATION REFORMS IN EASTERN EUROPE. A HUNGARIAN-ROMANIAN CASE STUDY. *Management & Marketing*, 7(2), 295-322. Retrieved [here](#).

Data for 2019 extracted from p.30 of EUA public Funding Observatory report: [here](#).
There are approximations since no precise data was provided.

ETER data refer to 2016 and are available only for 11 of 95 HEIs.

1.d. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined / incremental)	
Share in 2010 (or closest year available)	√√√√			
Current share (in 2020 or most recent year)	√√√√			

The funding formula is reviewed annually, and changes are made considering feedback from the higher education sector. In 2010 and 2020, formula funding was the only mechanism driving the core funds.

In 2010, 70% driven by number of students at the HEI (differentiated allocation according to subject and level of studies); 30% driven by quality criteria) (*Source here*). The survey respondent estimated that in 2010 the share of funding decided with the formula was 75%.

In 2020, 1.5% is allocated for the financing of special situations which cannot be integrated in the funding formula from the amount allocated in the national budget for institutional funding of universities. For the financing of doctoral grants for PhD students, an annual amount per student is calculated and allocated depending on study field. The remaining amount of institutional funding is distributed as follows (*Source here*): (1) Basic funding (72%) (basically a funding allocation model for teaching); (2) Additional funding (26.5%) to encourage excellence in higher education; and (3) Institutional Development fund (1.5%).

The survey respondent estimated that in 2020 the share of institutional funding decided with the formula was 91,2%. The rest is (FSS & doctoral grants which are allotted from the overall budget and what remains is distributed with the formula).

A1.26.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission.	Education (22%)	Research (46%)	Engagement (3rd Mission) (20%)	Other: International orientation (12%)	Comments and references	<p>From the sum allocated in the national budget for funding higher education, 1.5% is allocated to financing special situations (FSS) which cannot be integrated in the funding formula (this is the funding stream from which EUAs are financed) . Then a sum for financing doctoral grants is allocated per student with different discipline wights to reflect the different costs per domain (3 domains are identified). After this, the remaining national budget for funding higher education is allocated according to the following formula for core funding: (1) Basic Funding: 72%, (2) Additional funding: 26,5% - this represents the performance based funding based on quality criteria (also according to survey respondent), and (3) Funding for institutional development: 1.5%.</p> <p>Basic funding is allocated proportionally based on the number of 'equivalent student units' in BA or MA programs reported by the university. The number of 'equivalent student units' is determined through weighing the actual number of students with coefficients that reflect the different costs per domain and level of study (i.e. BA, MA, and other types of education like residency/pedagogic training/ preparatory year for foreign students).</p> <p>Additional funding is also allocated based on a formula that takes into account quality indicators. The indicators are split in 4 categories and given different weights. The table on the left shows the different categories and their ranking according to the weight attributed to the criteria in the national funding methodology. Categorization of criteria by mission is done by the funding agency CNFIS and is extracted directly from their 2020 funding methodology.</p>
--	--------------------	-------------------	--------------------------------------	---	-------------------------	--

	<p>1. Student to faculty ratio (8%)</p> <p>2. MA students to BA students ratio (6%)</p> <p>3. Ratio of faculty ≤ 40 years old to total number of faculty (4%)</p> <p>3. Ratio of number of permanent faculty with the right to pursue a PhD degree and the total number of faculty (4%)</p>	<p>1. Human resource quality (14%)</p> <p>1. Performance of scientific activity / artistic creation/ sport performance (14%)</p> <p>2. Impact of scientific activity/ artistic creation/ sport performance (12%)</p> <p>3. Funds for scientific activity/ artistic creation/ sport performance (6%)</p>	<p>1. Capacity to integrate people from disadvantaged socio-economic backgrounds in educational programs (5%)</p> <p>2. Places in student dorms (5%)</p> <p>3. Contribution of university to the stock exchange (4%)</p> <p>3. Internship/ practice activity for BA students (4%)</p> <p>4. Grants attracted by the university (2%)</p>	<p>1. Share international student mobility (6%)</p> <p>1. Share number of foreign students enrolled in study programs (6%)</p>	<p>Confirmed by survey respondent who attributed the following importance to the different categories:</p> <p>teaching/learning (related to the education mission): moderate importance</p> <p>scientific research/artistic creation/sport performance (related to the research mission): high importance</p> <p>regional orientation and social equity (related to societal engagement): moderate importance</p> <p>international orientation (relate to other): moderate importance</p> <p>Funding for institutional development is allocated to public HEIs upon application. All public higher education institutions are eligible to submit institutional development projects which may target one or more of the following areas: promoting new study program, increasing institutional capacity, improving the quality of teaching, developing research infrastructure, cultivating connections with local/regional communities, achieving social inclusion, internationalizing higher education activities.</p> <p>Source, here.</p>
2.b. Indicat	Education	Research	Engagement (3 rd Mission)	Other	<p>Comments</p> <p>According to the survey respondent, none of the indicators in the formula can be regarded as a performance indicator. However, the Additional funding stream of</p>

	N/A	<ol style="list-style-type: none"> 1. Human resource quality 2. Performance of scientific activity / artistic creation/ sport performance (14%) 3. Impact of scientific activity/ artistic creation/ sport performance 4. Funds for scientific activity/ artistic creation/ sport 	<ol style="list-style-type: none"> 1. Capacity to integrate people from disadvantaged socio-economic backgrounds in educational programs 2. Places in student dorms 3. Contribution of university to the stock exchange Internship/ practice activity for BA students Grants attracted by the university 4. Internship/ practice activity for BA students 5. Grants attracted by the university 	<ol style="list-style-type: none"> 1. Share international student mobility 2. Share number of foreign students enrolled in study programs 	<p>the core funding is aimed at improving the quality/excellence of universities in Romania and their performance in education, research, engagement, and international orientation. This is stated both in national reports and secondary academic literature. Therefore, I have those indicators in this table.</p>
--	-----	---	--	---	---

A1.26.3 General information on PBF

3.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references
Exact		
Estimate	26,5%	

3.b. Evolution of performance orientation in core funding system since 2010				Comments and references
Increased	Remained the same	Decreased	Don't know	
√				

A1.26.4 Data collection and performance monitoring

<p>4.a. Data collection mechanisms tied to the performance-based funding system</p>	<p>The information that feeds into the funding formula is collected and stored using the ANS Platform (the National Statistical Data Collection Platform for Higher Education). The ANS Platform is an integrated information system, which brings together the main statistical data on higher education accessible to all stakeholders. The data integrated within the platform is part of the data already collected by various central structures (UEFISCDI-CNFIS, MEN, INS, ANPCDEFP) through separate data collection processes. CNFIS uses the statistical data reported by universities in the ANS platform for all quality indicators, with a view to carrying out the analyses for the foundation and development of the methodology for the allocation of institutional funding for state higher education institutions.</p> <p>The reporting of the data needed to substantiate and implement funding methodologies is annual and has 2 reporting deadlines: 1 January and 1 October.</p>	<p>Comments and references</p> <p>UEFISCDI = Executive Unit for Financing Higher Education, Research, Development and Innovation</p> <p>CNFIS = National Council for Financing Higher Education</p> <p>MEN = Ministry of National Education</p> <p>INS = National Institute of Statistics</p> <p>ANPCDEFP = National Agency for Implementing European Union Projects on Education and Professional Development</p> <p>ANS Platform – see here.</p>
--	---	---

<p>4.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system</p> <p>According to survey respondent, the quantitative performance indicator that HEIs have to report on are:</p> <ul style="list-style-type: none"> Quality of human resources: for each branch of science, the HEI has to provide the average CNATDCU scores obtained by the teachers and researchers Impact of scientific activity/artistic creation/sports performance: for each branch of science, the average Hirsch scores obtained by teachers and researchers Performance of scientific activity/artistic creation/sports performance: for each branch of science, the average of the final scores obtained in the last 4 years by the publication of scientific articles Funds for scientific activity/artistic creation/sports performance: at the university level, as an average of the last 4 calendar years, the ratio between the sum of funds in projects and the total number of tenured persons in the university 	<p>Comments and references</p> <p>According to survey respondent this is the data provided by HEI.</p> <p>CNATDCU = National Council Recognizing University Titles, Degrees and Certificates</p> <p>CNFIS = National Council for Financing Higher Education</p>
--	--

A1.26.5 Any other comment

Articles & reports & webpages:

Vasilache, S., József, T., & Dima, A. M. (2012). HIGHER EDUCATION REFORMS IN EASTERN EUROPE. A HUNGARIAN-ROMANIAN CASE STUDY. *Management & Marketing*, 7(2), 295-322. Retrieved from <https://www.proquest.com/scholarly-journals/higher-education-reforms-eastern-europe-hungarian/docview/1030262526/se-2?accountid=106781>

http://www.cnfis.ro/wp-content/uploads/2020/12/raport_public_CN FIS_2019.pdf

<https://eua.eu/downloads/publications/eua%20pfo%20part%202%20report.pdf>

https://eua.eu/downloads/publications/pfo%20part%201_ppt%20-%20im.pdf

<https://openknowledge.worldbank.org/handle/10986/12295>

<http://www.cnfis.ro/raportare-2021-activitate-cercetare-creatie-artistica-performanta-sportiva/>

<https://ec.europa.eu/education/sites/default/files/document-library-docs/european-universities-factsheet-unita.pdf>

A1.27 Slovakia

A1.27.1 Context

1.a. Country name - Slovakia	<p>Higher education in the Slovak Republic is provided by:</p> <ul style="list-style-type: none"> 20 public higher education institutions, 3 state higher education institutions, 12 private higher education institutions, and 5 foreign higher education institutions. <p>Higher education institutions are independent institutions, and they manage the course and focus of education, research, development, the economy and their own internal organisation. The law defines the extent of self-governing scope of higher education institutions.</p>
1.b. Higher education sub-sector	

1.b. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other fees	3 rd party funds	Total	
2010 (or closest year available)	75.8%	N/A	N/A	100%	
2020 (CHEPS/ICF survey)	79.1%	N/A	N/A	100%	
2019 (ETER data)	91%	6%	3%	100%	

The main source of funding of public higher education institutions is constituted of subsidies from the State budget. HEIs can use other sources of funding to cover operating expenditure (SOURCE).

Representatives of the Ministry of Education reported the proportions of the institutional funding that HEIs receive from operational grants from public authorities, as indicated in the table.

ETER data based on 21 universities and other govt. dependant HEIs.

1.c. Share of funding mechanism type	Comments and
<p><i>Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)</i></p>	
	The answers are based on the survey responses and the interview.

	Funding formula	Funding contract	Other (e.g., Historically determined / incremental)	
Share in 2010 (or closest year available)	√√√ (87%)			
Current share (in 2020 or most recent year)	√√√√ (90%)			

A1.27.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission (performance indicators in bold)	Education	Number of students Number of graduates Unemployment rate of graduates Mobility of students	Comments and references	<p>The funding formula is used in Slovakia for 90% of the core funding of HEIs. The Ministry provides subsidies as part of core funding to public HEIs for the implementation of accredited study programmes; research, development and artistic activity; HEIs' development; and for social support of students. The Ministry provides subsidies to public HEIs under a contract.</p> <p>The decisive factors when determining the subsidies as part of core funding for the implementation of accredited study programmes are the number of students, number of graduates, costs of the provided study programmes, integration of the HEI, quality, graduates' employment outcomes and other perspectives associated with providing tuition. In Slovakia graduate employability is also leveraged through the performance funding mechanism (source).</p> <p>In terms of engagement, the activities of the Ministry of Education in the area of internationalisation are based on the Programme</p>
	Research	Assessment of quality of research and capacity for this activity Gain of research grants Income from research for non-public institutions		
	Equally to Education and Research	Publications Arts performance		

	Engagement (3 rd Mission)	/		<p>Declaration of the Government of the Slovak Republic for years 2016-2020 (SK), in which the Slovak Government bounds itself to support the increase in two-way mobility of students and HEI staff between Slovakia and other countries.</p> <p>The survey was used as the source for the indicators listed which was then validated by the interviewee from the Ministry of Education.</p> <p>The answers on performance indicators are based on the survey and the interview with the representative of the Ministry of Education. The interviewee from the Ministry of Education reported that the "assessment of quality of research and capacity for this activity" represents a stable part in the funding mechanism, being evaluated in six years' cycles.</p>
	Other	/		

A1.27.3 General information on PBF

5.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references	<p>The answer is based on the survey response and the interview with the representative from the Ministry of Education.</p> <p>The interviewee reported that the percentage can slightly differ across different HEIs.</p>
Exact	90%		
Estimate	/		

5.b. Evolution of performance orientation in core funding system since 2010				Comments and	<p>The answer is based on the survey response and the interview with the representative from the Ministry of Education.</p>
Increased	Remained the same	Decreased	Don't know		

√					The degree of performance orientation in Slovakia has slightly increased from 2010 (87%) to 2021 (90%).
---	--	--	--	--	---

A1.27.4 Data collection and performance monitoring

6.a. Data collection mechanisms tied to the performance-based funding system	Comments and references	The answer is based on the survey response and the interview with the representative from the Ministry of Education.
The data is collected by the Ministry of Education and its institutions. The vast majority of the data is stored in registries, such as in the national register of students, register of publications and performance. The data is published as a part of reports on allocations of grants, which happens at least once a year.		
6.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system	Comments and references	The answer is based on the survey response and the interview with the representative from the Ministry of Education.
HEIs do not report any indicators to the Government as all data is collected through national registries.		
6.c. Qualitative performance indicators reported by HEIs to the government in the context of the performance-based funding system	Comments and references	The answer is based on the survey response and the interview with the representative from the Ministry of Education.
HEIs do not report any indicators to the Government as all data is collected through national registries.		
6.d. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system	Comments and references	The answer is based on the survey response and the interview with the representative from the Ministry of Education.

Moderate administrative burden.

The interviewee explained that HEIs need to report the data in the national registries and the level of administrative burden may vary. Some HEIs use automated systems on reporting such data, for which the administrative burden may be lower than for those without such systems.

A1.28 Slovenia

A1.28.1 Context

1.a. Country name - Slovenia	The fiche covers the higher education sector: the funding of higher education is regulated by the <i>Higher Education Act (2016)</i> and the <i>Decree on the public financing of higher education institutions and other institutions (2017)</i> that determines the funding formula in more detail.
1.b. Higher education sub-sector	

1.b. Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other fees	3 rd party funds	Total	
2010 (or closest year available)*	50%	25%	25%	100%	
2020 (or most recent year)	N/A%	N/A%	N/A%	100%	

Funding of the HEIs is regulated by the Higher Education Act (2016) which stipulates that HEIs are allowed to obtain funds from the founder (i.e., the state in the case of public HEIs), the budget of the Republic of Slovenia, the budget of the EU, tuition fees and other contributions for studies, payments for services, grants, legacies, donations, and other sources (Article 72).

*Data from [Jongbloed et al. \(2010\)](#) suggests that only 50 % of HEI funding in 2010 was due to public funding while estimating 25% of funding coming from student fees and the same share of funding coming from other 3rd party sources. This data could not be confirmed by desk research, as it was not possible to re-obtain the exact same figures neither by exploring the database of Statistical Office of Slovenia nor by Eurostat or OECD statistics. The available data (closest to the type of information required in the table) indicate as follows:

In 2010 (OECD):

- the share of public expenditure on educational institutions was 82%
- the share of private expenditure on educational institutions was 15%
- the share of international expenditure on educational institutions was 3%

In 2017 (OECD, Education at a Glance 2020, p. 305):

- the share of public expenditure on educational institutions was 83%
- the share of private expenditure on educational institutions was 13%
- the share of international expenditure on educational institutions was 4%

					<p>The most recent data (for the year 2019) was extracted from the Slovenian Statistical Office database and shows no significant change:</p> <ul style="list-style-type: none"> the share of public expenditure on educational institutions was 84% the share of private expenditure on educational institutions was 11% the share of international expenditure on educational institutions was 5%
--	--	--	--	--	--

1.c. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined / incremental)	
Share in 2010 (or closest year available)	√√	√	√√	<p>Data for 2010 are obtained from Jongbloed et al. (2010).</p> <p>According to the HE Act (2016) the public funding of public and private HEIs with concession is provided for:</p> <ul style="list-style-type: none"> the <i>academic activity</i> of full-time study in the first and second cycles the study-related <i>extracurricular activities</i> of students <p>For the public HEIs only, the public funding is also provided for the <i>investments</i>, major maintenance and equipment. The HE Act (2016) also assumes the public funding of <i>tasks of national importance</i> in the field of higher education</p> <p>The public funding of the <i>academic activity</i> is consisted of funds for the basic funding pillar (TSF, up to 97%, on the basis of funding formula) and funds for the developmental funding pillar (RSF, up to 3%, on the basis of negotiation): both are jointly allocated to the HEIs as integrated funding. The TSF is determined on the basis of a formula and consists of two parts: fixed TSF funds (f-TSF, up to 75% of all TSF) and variable TSF funds (v-TSF, up to 25 % of all TSF).</p> <p>Developmental pillar (RSF) is determined on the basis of negotiation and can amount up to 3% of the total funds allocated for the academic activity.</p> <p>Public funds for the <i>extracurricular activities of students</i> are determined annually by an order of the Minister responsible for HE, taking into account the number of enrolled students and the value of funds in the financial plan of the Ministry responsible for HE for this purpose. Funds for investments in public HEIs are determined according to the annual management plan of the public HEI, and the financial plan of the Ministry responsible for higher education.</p>
Current share (in 2021 or most recent year)	√√√	√ (development pillar: up to 3%)	√ (investments)	

A1.28.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission (performance indicators in bold)	Education	<p>Number of full-time first- and second-cycle students (25%)</p> <p>Number of full-time graduate students, multiplied by the years of study programme (25%)</p> <p>Number of graduates (only performance indicator)</p>	<p>Comments and references</p> <p>It should be noted that the funding formula for the basic funding pillar consists of fixed and variable funding. 75% of the basic funding pillar is fixed and historically determined.</p> <p>The variable part of the basic pillar can amount up to 25% and is calculated based on 6 indicators: (i) the number of regularly enrolled students, (ii) the number of graduates, (iii) the share of scientific publications of HEI, (iv) the share of funds for research, development and marketing activities, (v) the share of graduates' employability, and (vi) the number of all higher education teachers habilitated according to artistic criteria. The amount of funds for HEIs is weighted according to the field of study.</p> <p>Percentages in the rows relate to the variable part of the financing pillar (i.e., 25% variable share) and are determined by the <i>Decree on the public financing of higher education institutions and other institutions</i> (2017).</p> <p>Indicators for universities are calculated using the two prior years.</p> <p>Given that the number of students may vary due to the publicly perceived quality of a HEI (or its particular programme), this could also be understood as a kind of performance-based indicator (although it is not meant as such).</p>
	Research	<p>Share of scientific publications (25%)</p> <p>Share of funds for research & development (18%)</p>	
	Equally to Education and Research	<p>Number of HE teachers habilitated according to artistic criteria (2%)</p>	
	Engagement (3 rd Mission)	<p>Share of graduate employability (5%)</p>	
	Other	/	

A1.28.3 Funding agreements/contracts

Education	Quality of study	Comment
-----------	------------------	---------

3.a. Main criteria used in the funding contract/agreement ranked by importance sorted by mission (performance criteria in bold)	Research	/	<p>According to the Higher Education Act (2016), 3% of the public funding for academic activity is allocated through a developmental funding pillar with the intention to stimulate the development of goals and activities related to specific areas: quality of study, internationalisation, knowledge transfer, environmental cooperation, scientific research, and artistic creativity, and social dimensions that contribute to the achievement of the objectives and results and to the implementation of measures or tasks in the field of HE as defined in the development planning documents of the country (HEA, 2016, article 72.f). The funds from the developmental pillar are determined in negotiations between representatives of HEIs and the Ministry of Education.</p> <p>According to the guidelines for the preparation of the 2021-2024 funding contracts (Usmeritve, 2020), HEIs were required to prepare the proposals of developmental goals that would include:</p> <ul style="list-style-type: none"> the proposals of their developmental goals related to the quality of study, internationalisation and cooperation with the local environment (mandatory, possible amount of funding up to 71% of total funds available for developmental pillar) the proposals of their developmental goals related to the development of the HE system in Slovenia with possible effects on the broader social environment (non-mandatory, possible amount of funding up to 29% of total funds available for developmental pillar). <p>All of the mentioned criteria may be interpreted as performance criteria; however, the quality of the study should be particularly mentioned. In Slovenian HE, there is currently strong emphasis on improving the quality of HE processes by introducing modern, more flexible forms of learning and teaching. The INOVUP project (started in 2018) contributes to improving the teaching competencies of higher education teachers and other employees.</p>
	Equally to Education and Research	Internationalisation	
	Engagement (3 rd Mission)	Development of the HE system in Slovenia	
		Cooperation with the local environment	
	Other	/	

A1.28.4 General information on PBF

5.a. Share of direct core funding (allocated through formula funding, funding contracts and/or historical/other mechanisms) driven directly by performance criteria		Comments and references
Exact	N/A	
Estimate	21%	

Estimate of 21% is based on the following parameters:
 appx. 18% share of basic funding pillar (number of students and share of art teachers as parameters for variable funding are excluded from the calculation)
 3% of the development funding pillar

5.b. Evolution of performance orientation in core funding system since 2010				Comments and references
Increased	Remained the same	Decreased	Don't know	
√				

The degree of performance orientation increased due to the introduction of the funding formula with its variable part of the basic funding pillar and the introduction of the developmental funding pillar.

A1.28.5 Data collection and performance monitoring

6.a. Data collection mechanisms tied to the performance-based funding system	Comments and references
<p>Article 81 of the Higher education Act regulates the type of data that HEIs should keep. This includes records of persons registered for enrolment, personal files, examination records etc. The Ministry also established the Records and Analytical Information System for HE in the Republic of Slovenia (Evidenčni in analitski informacijski sistem visokega šolstva v Sloveniji, eVŠ, 2012), which includes data on HEIs, publicly verified study programmes, students and graduates. The eVŠ is an analytical tool that facilitates regular monitoring of the system's operations and the development and streamlining of HE policies. As a central source of data on student status, the eVŠ also helps to verify the right of students to public subsidies and different forms of financial aid instruments. In 2014, eVŠ registered almost 1.5 million views of student data. The relevant data are also collected by the HEIs annual business and financial reports, as well as self-evaluation reports (in cooperation with Slovenian National Accreditation Agency).</p>	

6.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system	Comments and references	
HEIs report data on students and graduates via the Records and Analytical Information System of Higher Education in the Republic of Slovenia. Indicators are then calculated by the Ministry.		/
6.c. Qualitative performance indicators reported by HEIs to the government in the context of the performance-based funding system	Comments and references	
Every HEI is obliged to prepare regular self-evaluation reports in cooperation with the National Accreditation Agency. In addition, the Agency also performs external evaluations of study programmes. Qualitative data on quality and performance of HEIs are also part of HEIs' regular annual reports.		/
6.d. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system	Comments and references	
Moderate administrative burden.		In the past, this kind of burden was considerably higher, but it has been reduced by the introduction of eVŠ system in 2012.

A1.28.6 Any other comment

This template was filled using: Higher education act, section VIII ET2020 Working Group on Higher Education (2018). The power of funding in steering performance of higher education institutions, Zagreb Peer Learning Activity Conclusions, 7-8.11.2018 Eurydice section 3.2 on Higher Education Funding. URL . Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report. Enschede: CHEPS, URL . OECD education policy outlook for Slovenia, 2016. URL .

A1.29 Spain

A1.29.1 Context

1.a. Country name – Spain	Each Autonomous community has established a funding model within its own territory since 1995.
1.b. Region	
1.b. Higher education sub-sector	<p>The higher education (HE) sector in Spain has:</p> <p style="padding-left: 40px;">University education including Public universities, Private universities and university institutions, and Advanced Artistic Education.</p> <p style="padding-left: 40px;">Non-university Education including Advanced vocational training, Plastic Arts and Design Advanced Vocational Education and Advanced Vocational Education in Sports.</p> <p>(Private universities draw up their own financial rules)</p>

1b. Composition of institutional funding (%)					Comments and
	Core funds	Tuition and other student fees	3 rd party funds	Total	
					<p>Source: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). <i>Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report.</i> Enschede: CHEPS. p. 46. (see here)</p>

2010 (or closest year available)	76%	21%	3%	100%	<p>Funding for higher education is a mix between the State budget (for a small part), the Autonomous Communities (for the main part), and tuition fees.</p> <p>At the national level, the State provides a minority of funds for universities, and for the National University of Distance Education and the Menéndez Pelayo International University. The amounts allocated to each institution are annually established in the State Budget.</p> <p>Autonomous Communities provide roughly 80% of the public funding for universities according to the OECD²⁰. They establish the funds for universities located in their territories in their budget. Such funds come from: the taxes they collect and other revenues; State transfers: the amounts established for each Autonomous Community are determined by different parameters, which focus on enrolment size.</p> <p>Autonomous Communities also set up the regulations and procedures for the development and implementation of HE funding. They specify total income and expenses and are annually approved by the university's Social Council, which is the body in charge of supervising all economic activities and promoting the participation of society in university funding.</p> <p>(PS: There is also a performance-based element in research: the Spanish Sexenio programme assesses voluntary applications from individual researchers, who when successfully assessed on the basis of research output criteria, receive a (modest) salary increase. It is not considered a form of performance-based funding in this research which restricts itself to organisational level funding²¹).</p>
----------------------------------	-----	-----	----	------	--

²⁰ OECD (2018) 'Education policy outlook: Spain', p. 20. ([see here](#))

²¹ Jonkers, K. & Zacharewicz, T. (2015). *Performance based funding: a comparative assessment of their use and nature in EU Member States*. Report by the Joint Research Centre, p, 79, EUR 27477.doi10.2791/134058. HE also benefits from competitive funding for research, which exists through "Severo Ochoa Centres of Excellence" and "María de Maeztu Units of Excellence"

1.c. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined/incremental)	
Share in 2010 (or closest year available)	√√√	√	√√	<p>In Madrid, (based on report by the EUA, 2015:22), the Government resorted to historical allocation with cuts every year due to the austerity measures and the use of formula-based funding has been suspended²².</p> <p>For advanced vocational training cycles in publicly-funded private schools: the amount of core funding from the State budget is set by the Ministry for the first year. The State budget varies for the second year depending on enrolment numbers, the number of hours taught and overall level of public expenditure. The total amount is established in the budget of the relevant education authorities. The amount of fees students have to pay depends on the specific Autonomous community.</p> <p>Information is not available for university education.</p> <p>Source: Jongbloed, B., de Boer, H., Enders, J. & File, J. (2010). <i>Progress in higher education reform across Europe. Funding Reform. Volume 1: Executive Summary and main report. Enschede: CHEPS. p. 48. (see here)</i></p>

²² Clayes-Kulik, A.L. and Estermann, T (2015) 'Define thematic report: performance-based funding of universities in Europe'. ([see here](#))

A1.29.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission		Comments and references
Education	Research	
1. Number of Bachelor/Master students 2. Number of doctoral students/candidates 3. Number of staff 4. Floor surface 5. ECTS attained 6. BA/MA degrees obtained 7. Number of International students	1. Research evaluation mechanisms 2. Patent applications 3. External funding obtained 4. EU/international funding obtained 5. Research contracts obtained 7. Diversity related indicators 8. Community outreach 9. Income from science and technology transfer	

A1.29.3 Any other comment

<p>This template was filled using:</p> <p>Claeys-Kulik, A. & Estermann, T. (2015). DEFINE Thematic Report: Performance-based funding of universities in Europe. Brussels: European University Association</p> <p>Jonkers, K. & Zacharewicz, T. (2015). Performance-based funding: a comparative assessment of their use and nature in EU Member States. Report by the Joint Research Centre, EUR 27477.doi10.2791/134058</p> <p>OECD (2018) 'Education policy outlook: Spain'. (see here)</p>

A1.30 Sweden

A1.30.1 Context

1.a. Country name – Sweden	<p>Sweden does not have a binary HE system, it has a homogenous HE system. “The only visible institutional differentiation among Swedish HEIs is in relation to the level of qualification. To illustrate, Sweden organizes its HE system into three cycles: first, second, and third. The Higher Education Act enacted by the Swedish parliament (Riksdag) specifies the formal requirements that distinguish these cycles. Broadly, cycles are classified according to the number HE credits awarded. An academic year is calculated at 40 weeks of full-time study which corresponds to 60 HE credits.”</p>
1.b. Higher education sub-sector	<p>There are approximately 50 HEIs in Sweden. Sweden has 13 public universities, 17 public university colleges, 5 art, design and music academies and 13 independent educational providers.</p> <p>“Parallel with the state-funded institutions for HE there is a number of independent education providers and independent course providers. These institutions charge fees and have no grant-aid when they offer HE to employers but when they offer education directly to students it is free of charge and state-funded just like at public institutions.”</p> <p>For updated list of HEIs check here. For funding check here.</p>

1.b Composition of institutional funding (%)					Comments and references
	Core funds	Tuition and other student fees	3 rd party funds	Total	
2010	87%	0%	13%	100%	

2019 (CHEPS/ICF survey)	87%	1%	12%	100%	<p>In Sweden, there is differentiated public funding split on education (BA & MA) and research (research & PhD). Funding for Research and PhD (2019): 76% public sources and 24% 3rd party funds (private research foundations; non-profit organisations; corporate research funding; EU funding).</p> <p>In 2019 funding for 1st and 2nd cycle of higher education amounted to SEK 23.8 billion. The same year, the HEIs' income from tuition fees amounted to SEK 930 million.</p> <p>Sources: link 1, link 2, link 3.</p> <p>ETER data based on 27 universities and university colleges</p>
2019 (ETER data)	65%	1%	34%	100%	

1.c. Share of funding mechanism type				Comments and references
Legend: 0 = not present (share = 0%); √ = small share (1%-10%); √√ = medium share (10%-50%); √√√ = large share (50%-90%); √√√√ = extremely large (90%-100%)				
	Funding formula	Funding contract	Other (e.g., Historically determined/incremental)	
Share in 2010 (or closest year available)	√√√√			
Current share (in 2020 or most recent year)	√√√√			

“The Riksdag determines the level of funding for each HEI, which receive separate funding for 1st- and 2nd-cycle education and the funding for research and 3rd-cycle education.” Thus, in Sweden, there is differentiated public funding split on education (BA & MA) and research (research & PhD).

Sweden introduced formula funding for teaching in 1993 and for research in 2009.

“Government funding for 1st- and 2nd-cycle education is entirely performance based. Compared to 1st- and 2nd-cycle education, only a small part of the framework funding for research and 3rd-cycle education is performance based.” Approximately 20% of research funding is linked to performance criteria while the rest is historically determined. Nevertheless, both performance-based criteria and historically determined funding are part formula for research funding so the entire core funding system is formula based.

Sources: [link 1](#), [link 2](#), [link 3](#).

A1.30.2 Funding Formula

2.a. Indicators used in the current formula funding ranked by importance and categorised by mission (performance indicators in bold)	Education	<ol style="list-style-type: none"> 1. Number of students enrolled 2. HE credits attained 	Comments and references	<p>Public funding for 1st- and 2nd-cycle HE: “Government funding for 1st- and 2nd-cycle education is entirely performance based. It is calculated based on the number of enrolled students (FTEs) and on the HE credits they attain (converted to annual performance equivalents). All HEIs covered by the system receive the same government per capita allocation, but the amount varies between different disciplinary domains. The funding cap defines the maximum total amount each HEI may receive. This funding cap, combined with the way in which the education is divided among the different disciplinary domains, sets the limits for the number of students at each HEI.”</p> <p>Public funding for research and 3rd-cycle: The three indicators are used for allocating PBF for research: bibliometrics, external funding, and collaboration with the surrounding society. “These are equally weighted indicators incorporated into a performance formula. Bibliometrics measure publication numbers and citations using 4-year averages extracted from Thomson and Reuters. Citations are field-normalized. External funding measures as a running 3-year average and is weighted by discipline. Sweden has used these measures since 2009 (OECD, 2016). The third metric, which measures the engagement of HEIs with local communities, has only come into effect in 2018 (UKÄ, 2019). HEIs with research and 3rd-cycle entitlement receive additional funding for research from public sources, such as research funding agencies.”</p> <p>Sources: education funding and research funding.</p> <p>UKÄ was asked to give its opinion on a report from Vinnova (i.e. Innovation Sweden) which proposed a series of methods and criteria for assessing performance and quality in HEIs' collaboration with surrounding society. The response from UKÄ, and a number of other actors, was negative: “The proposed model is not sufficient legally secure, transparent and comparable” to evaluate the HEIs' collaboration with surrounding society. Source: link.</p> <p>“Collaboration as a concept has no clear definition in the Higher Education Act.” Source: link, p.8</p> <p>This means that collaboration with the surrounding society on the one hand is said to be a performance indicator, but on the other hand it is not defined and measured. Source: survey response from Sweden.</p>
	Research	<ol style="list-style-type: none"> 1. Bibliometrics 2. External funding 		
	Equally to Education and Research	/		
	Engagement (3 rd Mission)	<ol style="list-style-type: none"> 1. Collaboration with the surrounding society 		
	Other	/		

A1.30.3 Data collection and performance monitoring

3.a. Data collection mechanisms tied to the performance-based funding system	Comments and references	Source s: link 1. link 2. link 3.
<p>The Swedish Higher Education Authority is responsible for gathering national statistics on higher education, including financing of HEI's. The statistics are published in an annual status report.</p> <p>Every year the Government caps the funding of courses and programmes of each HEI by setting a maximum amount, called the funding cap. A small part of the funding for research is performance based. This part is based on scholarly production, external funding and collaboration with the surrounding society. As regards how the data is collected, a large part of the statistics is collected by Statistics Sweden (SCB) on behalf of UKÄ. That is the case for the statistics on 1st-, 2nd- and 3rd-cycle education. Statistics on the staff of universities and colleges are taken from Statistics Sweden from their short-term wage statistics.</p> <p>The economic statistics are collected by UKÄ directly from the HEI's in connection with the submission of their annual reports to the government. Most of the statistics are collected from various registers, but statistics on the economics of higher education institutions cannot be retrieved from registers but must be collected directly from universities and colleges via the so-called financial template.</p>		
3.b. Quantitative performance indicators reported by HEIs to the government in the context of the performance-based funding system	Comments and references	Source: link .
Number of enrolled students (converted to FTE) and credits earned by students (converted to annual performance equivalents (APE)).		
3.c. Qualitative performance indicators reported by HEIs to the government in the context of the performance-based funding system	Comments and references	Source: survey response.
No specific qualitative info is reported.		
3.d. Perceived administrative burden for HEIs to abide by the reporting requirements in the context of the performance-based funding system	Comments and references	Source: survey response.

A1.30.4 Any other comment

Good sources of information of public funding of higher education institutions in Sweden and the development of public funding are the yearly reports by the Swedish Higher Education Authority: <https://english.uka.se/about-us/publications/reports--guidelines/reports--guidelines/2020-08-26-higher-education-institutions-in-sweden---2020-status-report.html>

Annex 2 Case studies

A2.1 Austria

A2.1.1 Description of the funding system

A2.1.1.1 Introduction

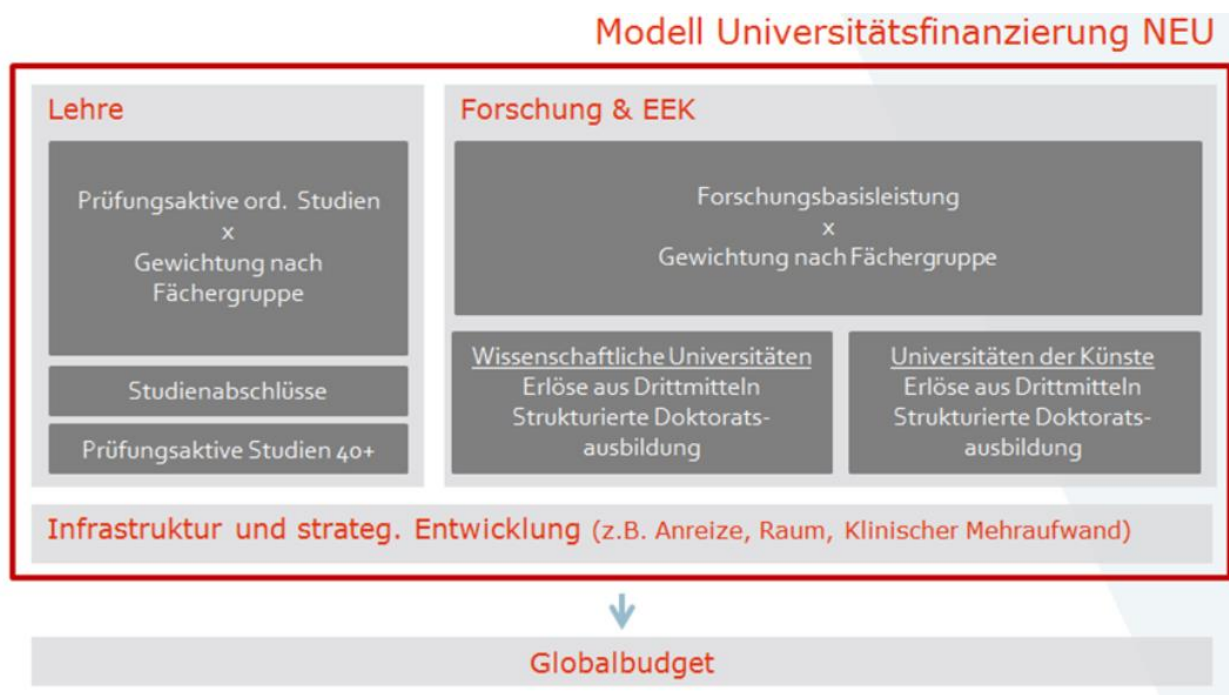
The Austrian higher education system is structured into four sectors, which are uneven in size. They are: 22 public universities (representing about 80% of total students enrolled in higher education), 21 universities of applied sciences (*Fachhochschulen*, UAS), which were introduced in 1993 and have a focus on vocational-oriented education and applied research. Their relevance has grown since their creation, and new study programmes are created yearly; 16 private universities with around 150 programmes and 14 university colleges for teacher education (established in 2005).²³ The case study concentrates on the performance-based funding of public universities and is not taking into account the funding of universities for applied sciences and other higher education systems in Austria.

A2.1.1.2 How is the funding system structured? (The shares of formula funding, performance agreements and other funding approaches)

The funding system of public universities is based on funding contracts (*Leistungsvereinbarungen*), however, these contracts emerge from a formula, driven by specific indicators. This financing model is titled '*Universitätsfinanzierung NEU*' and has been introduced in 2019.

The following scheme shows the model of the recent performance-based university funding in Austria as a schematic chart:

23 <https://www.oecd-ilibrary.org/sites/8839f223-en/index.html?itemId=/content/component/8839f223-en>



Source: <https://www.bmbwf.gv.at/Themen/HS-Uni/Hochschulgovernance/Steuerungsinstrumente/Universit%C3%A4tsfinanzierung.html> , accessed on Nov 23rd, 2021.

For public universities, the formula (including performance-based funding) determines an amount of around 55% of the public funding of Austrian universities, where 31% is for education and 24% for research. The remaining share of 45% is infrastructure and strategic development funding.

The indicators for *education* are:

1. number of students in degree programmes actively taking exams ('*Prüfungsaktivität*')
2. graduates ('*Absolventinnen und Absolventen*')
3. competition indicator: Students that are particularly active ('*Prüfungsaktive Studien 40+*') or: '*Anteil an Studien mit mindestens 40 ECTS pro Studienjahr*')

The basic part of the formula for *education* is calculated by weighting the number of students (which is the most important indicator for the education component) in degree programmes who actively take exams (which is indicated by the number of students taking at least 16 ECTS-points per academic year), over seven different subject groups (e.g., classroom-based subjects, laboratory-based and creative arts subjects). Each of the different subject groups have their funding rate to reflect cost differences between them, since some educational programmes are seen to be more teaching intensive than others.

The indicators for *research* are:

1. research staff

2. revenues from R&D projects (*‘Einwerbung von Drittmitteln’*; third party funding)
3. doctoral schools (*‘Strukturierte Doktoratsprogramme’*)

The basic part in the formula for *research* is deduced by the number of artistic or scientific staff, weighted over the subject groups (this means the multiplication of the number of scientific or artistic staff and a funding rate per subject group).

In addition to this basic funding for education and research, there is a performance-driven allocation. This makes up a much smaller share (contains a sum of around €400 million, which is a percentage of 4,6 % of the whole budget) and takes into account four competition (performance) indicators (*‘Wettbewerbsindikatoren’*):

- Successful acquisition of third party funding in research,
- Structured PhD programmes in research,
- High number of graduates in education, and
- High percentage of “very active” (*‘Prüfungsaktive’*) students with more than 40 ECTS per year in education.

The above-described funding mechanism for public universities is based on a performance agreement (*Leistungsvereinbarung* = LV). These agreements are concluded every three years between individual universities and the federal ministry for education, science and research (*Bundesministerium für Bildung, Wissenschaft und Forschung*; BMBWF). Each university needs to report the current state of implementation to the federal ministry.

The agreement allows universities to set their own individual targets, indicators and milestones (which can also be qualitative) that should be achieved by the end of the performance agreement period.²⁴ These individual targets are set around eight system objectives set by the government, which are:

The **eight system objectives** are:

1. Further development and strengthening of the higher education system
2. Strengthening basic research
3. Improving the quality of university teaching
4. Improvement of relevant performance indicators in teaching (Impact orientation indicators)²⁵

²⁴ <https://www.bmbwf.gv.at/Themen/HS-Uni/Hochschulgovernance/Steuerungsinstrumente/Leistungsvereinbarungen.html>

²⁵ Note: Since December 2019 a new university plan is in place, in which the system objective 4 “improvement of relevant performance indicators in teaching (impact orientation indicators)” is included in system objective 3 “improving the quality of university teaching”. The other system objectives stayed the same. The old – above mentioned – university plan is the one relevant for the budgeting phase 2019-2021, the new plan is relevant for the budgeting phase 2022-2025.

5. Promotion of young scientists
6. Expansion of knowledge and innovation transfer as well as the Location advantages
7. Increasing internationalization and mobility
8. Social responsibility of universities: Gender equality, diversity and social inclusion, responsible science, Sustainability and digital transformation²⁶

Box 1 below presents the current performance agreement of the University of Vienna as an example:

Box 1 Example of a performance agreement ('*Leistungsvereinbarung*'): University of Vienna

Performance agreement ('*Leistungsvereinbarung*') of the University of Vienna

The 2019-2021 performance agreement was signed between the University of Vienna and the Republic of Austria in December 2018.

During the negotiations, which were based for the first time on a new financing system based on research and study indicators, a budget increase of 17 percent was achieved for the University of Vienna. The global budget (spread over the three years of the performance agreement) amounts to over €1,400 million. With this result of the negotiations, the University of Vienna can now make targeted investments in the coming years and can thus achieve significant further development as well as a higher profile in research and teaching.

Of the additional funds, part will ensure the maintenance of operations, while around €120 million will be available for those new measures that serve to implement the development plan and achieve the goals set out in the performance agreement.

As a key step on this path, the announcement of 73 professorships and tenure-track professorships was made in November 2018 to further improve study conditions through additional staff and to set future-oriented accents in research, including in the areas of Data Science and Digital Humanities, Health and Microbiome, Society and Communication, Molecular Biology and Cognitive Neuroscience, and Quantum and Materials.

Because of the additional funding, there are great opportunities, but also significant obligations. The steps necessary to increase audit-active enrolment and plan for additional admissions, for the 2019/20 academic year in Law and Social Sciences, English and American Studies, Chemistry, and Translational Science, will be a key issue in implementing the performance agreement. Resources will be allocated within the university via the target agreements.²⁷

There is an indicator for students actively taking part in exchange programmes which is currently in preparation. This will be used for the next budgeting phase 2022-2025. Up to now the increasing internationalisation and mobility is not used in the performance

²⁶ https://www.bmbwf.gv.at/dam/jcr:4187e064-8213-479d-9c81-d3a1234818d3/GUEP_2019-2024__Kurzversion.pdf

²⁷ See <https://rektorat.univie.ac.at/strategie/leistungsvereinbarung/>

indicators. This also means that internationalisation as such is part of the overall objectives, but specific funding for international projects is up to now mostly seen as “third party funding”.

A2.1.1.3 What are the key goals of the funding system?

The current funding system introduced in 2018 focuses on explicit, global goals (*‘Wirkungsziele’*) for higher education²⁸ These are system-specific and are the basis of the funding system of public universities is based on these explicit goals and there defined values for a well-developed higher education sector.

- Increasing the number of degrees at universities, universities of applied sciences and private universities in a quality- and capacity-oriented manner and in conformity with the Bologna objectives.
 - A central aim of the funding system is to improve the study situation and to increase the number of studies in which students take examinations, and thus also the number of degrees awarded.
 - Strengthening student counselling by expanding the projects "*18plus - Berufs- und Studienchecker*" and "*ÖH-MatulantInnenberatung*" (ÖH: *Österreichische Hochschülerinnen- und Hochschülerschaft*, the Austrian Student Union) and "*Studieren Probieren*" projects.
 - Increasing public awareness of the importance of local research (*‘Long Night of Research’* in cooperation with other ministries) and expansion of pre-university support for children through children's universities.
- Establishing a nationally coordinated, internationally competitive higher education and research area.
 - Further development and implementation of a comprehensive university planning.
 - Accompanying the implementation of the performance agreements with the universities.
 - Implementation of the performance agreements with the Austrian Academy of Sciences (ÖAW) and the Institute of Science and Technology Austria (IST Austria).
 - Improving the framework conditions for the mobility of students, teachers and researchers.
 - Initiation of university cooperation with universities, non-university institutions and the economy at national and EU level.
- A balanced gender ratio in leadership positions and committees as well as among young academics/artists
 - Ensure the implementation of the strategic gender equality goals agreed in the

28 https://service.bmf.gv.at/Budget/Budgets/2020/bfg/teilhefte/UG31/UG31_Teilheft_2020.pdf

performance agreements with the universities: Gender balance in all positions and functions; integration of the gender perspective in structures, processes and policies in order to initiate a cultural change towards more equality; integration of gender in didactics and teaching and research content; further development of the gender equality strategy. Integration of gender into didactics and teaching and research content; further development of diversity management.

- In the case of committees in the area of competence of the department or in the case of committees where the departmental management has co-determination rights in the appointment of members, gender-equitable appointment is to be brought about through appropriate appointment (bodies of AQ Austria, university councils).
- Implementation of gender equality measures within the framework of the performance agreement between the Ministry and the ÖAW and the IST Austria (ÖAW: implementation of the women's advancement plan; IST-Austria: further development and implementation of a personnel development and career advancement plan)
- Ensuring a high level of cutting-edge research through successful participation in the EU Research Framework Programme as well as through competitive funding measures in basic research in Austria
 - Initiation of university cooperation with universities, non-university institutions and industry at national and EU level.
 - Promotion of further excellence-related research activities in the European/international research area.
 - Further development of the advisory system for Horizon 2020 and an incentive system for universities by means of performance agreements with universities.
 - Increasing public awareness of the importance of domestic research (Long Night of Research in cooperation with other ministries) and expand pre-university support for children through children's universities (also with a view to later scientific and academic careers).
 - Strengthening Austria's scientific performance in international comparison and its attractiveness as a science location, above all by promoting top-level research by individuals or teams in the field of basic research, but also by contributing to improving the competitiveness of research institutions and the science system in Austria (FWF).

A2.1.1.4 What is/was the motivation/ rationale for the current (PBF) funding system? (issues it aims to address)

The recent capacity-based university funding mechanism, introduced with the performance agreement period 2019-2021, has strengthened the steering capacity of performance agreements with the aim to improve their effectiveness. The relation between the objectives defined in the performance agreement and the level of funding received from the

government has to be strengthened.²⁹ The financing model ‘*Universitätsfinanzierung NEU*’ was therefore introduced as ‘capacity-oriented, student-related university funding’, addressing relevant parameters for quality in teaching and research:

- Improved control and planning of capacities in teaching, above all through capacity and quality orientation as well as greater student orientation;
- Increased transparency and controlling costs through orientation towards the university's core service areas;
- Improving the quality of teaching (by improving supervision ratios) and improving the quality of research (correspondingly through more personnel resources);
- Increase in the number of students that are active in examinations (with at least 16 ECTS credits per academic year) and in the number of completed studies;
- Greater plannability and more regulated developments through adequate and - where necessary - capacity-oriented access regulations.³⁰

A2.1.1.5 Did any major reforms/ changes take place in recent years?

The main major reform was the introduction of the “*Leistungsvereinbarungen*” (performance contracts) in 2007, even if they were in terms of performance-based funding rather “toothless” until 2019. But they set the basis for including specific goals and objectives for funding. Up to the late 1990s funding of public universities had been quite intransparent, and nearly no mechanisms for funding were in place. The change of the Austrian HE system in the 1990s (introduction of Universities of Applied Sciences with a structured and transparent student-number-based funding system) changed also the approach to university-funding in Austria. But it took another 10 years to introduce a first performance-based funding scheme: The introduction of “*Leistungsvereinbarungen*” (performance contracts) in 2007 and their defined specific goals to be reached within each period brought a first glance of performance-based funding into Austrian universities. Still, the amount of the performance-based funding as part of the overall funding was low and covered only a few percent of the whole funding.

The main contradiction to performance-based funding was the overall attempt to provide an open admission policy, meaning that all university programmes could be chosen by all students, who fulfilled the requirements. This changes in 2005, when first admission processes were introduced for specific study programmes, where the danger of “being too crowded for the existing infrastructure” was evident (human medicine, veterinary medicine, psychology, and some other).

It took another ten years for performance-based funding to become the main funding regime for Austrian universities. After several attempts to reorganise the funding scheme, the 2018 reform introduced a new capacity-based, student-related funding system. The performance agreements of 2019-20 are the first to function within the new funding system. They have been in place for at least three academic years and will be evaluated next year.

29 <https://www.oecd-ilibrary.org/sites/8839f223-en/index.html?itemId=/content/component/8839f223-en>

30 <https://www.bmbwf.gv.at/Themen/HS->

[Uni/Hochschulgovernance/Steuerungsinstrumente/Universitaetsfinanzierung.html](https://www.bmbwf.gv.at/Themen/HS-UNI/Hochschulgovernance/Steuerungsinstrumente/Universitaetsfinanzierung.html)

A2.1.2 Does the (PBF) funding system work?

A2.1.2.1 What are the positive (intended) and negative (unintended) effects of the system in terms of the three missions (education, research, engagement) of higher education institutions?

One positive effect expected from the performance-based funding system is to support students in their decisions for study programmes and their “streamlined” pathways through study programmes. As the performance-based funding is especially looking to support active students (taking at least 16 ECTS points in an academic year), the study programmes at universities started to react on this, providing e.g. specific tutorial programmes at least in the entrance phase of the study programme, the so-called “study entry and orientation phase” (“StEOP – *Studien-Eingangs- und -Orientierungsphase*”). A recent evaluation³¹ shows that most of the Austrian universities have developed measures to support students in the entry phase of their study programmes (e.g. by providing specific tutorial support, by providing a better overview on expectations for study performance, or by providing specific measures to “pass-by” specific orientation programmes, which would otherwise “block further study pathways”, as they are seen as requirements for further study procedures. These effects were not only positive, as some of these measures do counteract to the intention of the study entry and orientation phase itself.

The system is otherwise too recent for further effects to be evidenced. When it comes to the so-called competition indicators (“*Wettbewerbsindikatoren*”), which allow a surplus of funding when reached (as improvement in number of graduates, “very active” students - with more than 40 ECTS per academic year -, third party funding, and doctoral studies), there is by now no evidence that specific actions have been developed by Austrian universities. However, the system still has not been in place that long and the COVID crisis has made it difficult to detect the impact of the system and the measures undertaken by universities. Any developments in universities are more likely to appear in the coming years.

A2.1.2.2 What are effects on inclusion, innovation of Teaching & Learning and on transnational collaborations?

As stated above, the short time the new funding regime has been in place (since the academic year 2019/2020) and the challenges related to the COVID-crisis make it difficult to answer this question.

There is an indicator for students actively taking part in exchange programmes which is currently in preparation. This will be used for the next budgeting phase 2022-2025. Up to now the increasing internationalisation and mobility is not used as part of the performance indicators. However, internationalisation is one of the global objectives to be addressed, and specific funding for internationalisation projects is a part of the “third party funding” indicator.

³¹ https://www.bmbwf.gv.at/dam/jcr:8e09e898-e531-440e-9923-5b081335dd54/Endbericht_StEOP_20210210.pdf

A2.1.3 Data collection and performance monitoring

A2.1.3.1 Is there evidence to support the positive/negative effects touched upon in the previous question?

The new funding system is still too young to really report about its effects, positive or negative. Especially the data from the first two years (2019/2020 and 2020/2021) are overlapping with the COVID-19 pandemic and its effects on teaching and learning at universities. Up to now, universities stated some minor administrative barriers, but the indicators used had been already in place for many years as part of the data report to the BMBFW.

A2.1.3.2 How are the effects of the funding system (its impact on performance) monitored?

There are no details available on planned monitoring and evaluation initiatives around the new funding mechanism for universities. An internal evaluation from the Ministry of Education and Science, together with the Ministry of Finance, is in place, but the data is still internal.

In a statement on the draft for an ordinance on the implementation of the *Universitätsfinanzierung - NEU (Universitätsfinanzierungsverordnung – UniFinV)*, Universities Austria³² (the *Österreichische Universitätskonferenz*, Uniko) suggests an on-going evaluation of the implementation by a working group, which should include experts from ministries and universities.

A2.1.3.3 What data (which indicators) are collected? (What data is exchanged between HEIs and funding agencies?)

Data about study performance and research performance has to be provided in order to be used as indicators to allocate performance-based funding. The data is also included in the annual reports from universities. The data refers to: Active students (percentage of students doing a minimum of 16 ECTS per academic year), “very active” students (percentage of students doing a minimum of 40 ECTS per academic year), the of number of graduates, third party funding and developments in doctoral students. Some of this data was new to universities, which meant that for the implementation of the performance-based funding an administrative burden was observed by some universities.

A2.1.3.4 Are there plans to revise the data collection to make it more useful for policy-makers and/or to reduce the administrative burden?

No plans are known related to this issue. However, the implementation burden is known, as the data collection is in place now and each university is reporting to the Ministry of Education and Science. The administrative burden should now be – after the

³² A non-profit organisation; its role is to assist the Austrian universities in the fulfilment of their tasks and responsibilities and to foster scholarship and research.

implementation of the data collection for the first year – less high, as the same kind of data is from now on collected every year and should be available through the data corpuses of the universities through specific queries.

A2.1.4 Funding the EUI

A2.1.4.1 Does the national funding system support the goals of the European Universities Initiative (EUI)?

In Austria a special working group is established in order to discuss in regular meetings and work out solutions for challenges faced by the Austrian HE institutions participating in the EUI. From the Austrian point of view, the long-term funding of EUI should have a deeply interwoven, multi-level funding structure. The European funds for the “European Universities” should be supplemented with national funds as far as possible, in order to ensure their long-term impact at European and national level.³³

Internal support to the EUI is provided through additional staff costs, infrastructure costs etc. Individual agreements are in place, but no structured quantification of support is possible. Some individual examples are mentioned at the overview site of the ministry, where examples of Austrian HE institutions involved in the EUI are presented. Some examples describe an own university contribution of 2/3 of the whole project budget.³⁴

A2.1.4.2 Is there a debate on changing (increasing) the national funding for supporting transnational collaborations between HEIs? (or on changing the criteria for that support? (e.g. w.r.t. conditions, flexibility, time period)

This cannot be said at this time, as the PBF regime and its effects on the Austrian HE institutions participating in the EUI is too short for evaluation.

The participation of the Austrian HE institutions in the initiative is important from a strategic and educational point of view. New and innovative forms of cooperation are developed, and top quality and excellence are generated through stronger cooperation in teaching, research, innovation, and knowledge transfer. At the same time, a contribution is made to the quality and attractiveness of the Austrian and European HE area and European knowledge-building teams that deal with global challenges are set up. Furthermore, the participation in the initiative increases the visibility of the Austrian HE institutions.

The HE institutions provide a mid-term report and a final report to the Ministry and the working group supporting the EUI with additional national funds. The working group monitors the activities of the Austrian HE institutions involved in the initiative through regular meetings and annual conferences / events. Furthermore, the working group is in close contact with the project coordinators.

As already stated above, internationalisation in terms of participation of students in exchange programmes will be developed as an indicator for the funding formula in the upcoming funding period (2022-2025).

³³ Based on contacts and an interview with the Ministry of Education and Science in June 2021

³⁴ <https://www.bmbwf.gv.at/Themen/HS-Uni/Aktuelles/European-Universities.html>

A2.1.5 Lessons and challenges

A2.1.5.1 What are the main lessons that can be drawn from the past when it comes to the functioning of the (PBF) funding system? What worked particularly well – or not so well?

The main discussion point when introducing a performance-based funding regime was the overall goal of open HE admission in Austria. This was used as political statement very often against performance-based funding. But the pressure in the direction of performance-based funding in order to provide at least a higher transparency in the funding universities was growing and the open admission was pushed back, as now a high percentage of study programmes use admission procedures in order to provide an efficient use of existing infrastructure for an optimal number of students.

As a need for more transparency in funding universities was also communicated by the main stakeholders in HE policy and HE management, the newly established performance-based funding regime is seen positively by most of the HE stakeholders. Especially larger universities (in terms of students numbers) communicate more positive statements about PBF, while specific smaller universities do fear a loss due to neglecting specific values or disciplines in funding HE (e.g. universities for arts, who had specific funding models in place, which were more focussed on the specific needs of universities for arts). This argument is not stated publicly to the authors' knowledge, but is often used by the sector in discussions about university funding.

A2.1.5.2 What are the perceptions of the key stakeholders on the main challenges?

The main challenges are seen in the overcoming of the traditional open admission policy on the one hand (which is still deeply connected to some political stakeholders and the students' association) and the PBF regime, that focusses on the number of students and their successful completion of programmes, but having a ceiling in student numbers to provide funding stability at the same time. While student success as such is defined in some indicators, the indicator of research is based still only on the number of research staff and third party funding; both are seen as minimum requirement for this part of PBF. However, more qualitative indicators would be good, but complex to define and to provide.

Universities specifically argued that the new performance-based funding scheme would be a challenge for them, especially to reach specific indicators to stabilise the global budget for a single university. Especially for the indicator teaching staff some equivalent figures had to be defined to tackle the risk of not finding the right professorial staff at the right time. Universities were regarding this, and the overall risk of losing parts of the global budget, as the main challenge at the beginning of the new funding scheme.³⁵

³⁵ Ecker, Brigitte, Campbell, David F.J., Danler, Clemens, Gogola, Gerald (2020): Universitäten als unternehmerisch handelnde Institutionen. Steuerungsrelevanz finanztechnischer Instrumente und Kennzahlen. WPZ-Research Projektbericht im Auftrag des Bundesministeriums für Bildung, Wissenschaft und Forschung. Download from <https://www.bmbwf.gv.at/Themen/HS-Uni/Hochschulgovernance/Steuerungsinstrumente/Universitätsfinanzierung.html>

A2.1.5.3 What other policies and initiatives can be held responsible for the (non)-performance of the system? How do they work as incentives?

The Ministry of Education, Science and Culture (responsible for HE policy) has – together with all HE institutions in Austria – developed a programme for the “Social Dimension in Higher Education”³⁶, which is taken over in a specific institutional act for social dimension and social responsibility. While the programme for social dimension does not influence the funding as such, it allows specific student groups admission, even when funding criteria would probably be influenced (e.g. through not reaching performance indicators such as “highly active students”).

On the other hand, the legal framework is pushing universities to a more transparent and structured pathway for students through study programmes. Admission procedures for many study programmes nowadays should provide a better informed study choice for future students on the one hand (based on expected study contents and performance expectations). The study entry and orientation phase on the other hand should provide this as well as a better inclusion of all students in their study programmes.

Financial support to students from families with fewer financial possibilities also influences the study success rates, as this is connected to a minimum of ECTS mastered successfully within each academic year. However, this system is in place already for more than 25 years and has not influenced the PBF regime at universities.

A2.1.5.4 Do stakeholders hold different opinions on the changes to be made to the funding system?

Overall, the system is seen as beneficial for all universities, new topics (such as the internationalisation factor) are discussed on a broad basis and are likely to find a broad consensus.

³⁶ <https://bmbwf.gv.at/Themen/HS-Uni/Studium/Leitthemen/SozDim.html> , accessed on Nov 15, 2021

A2.1.6 Sources

- BMBWF (n.d.): *Leistungsvereinbarungen*. Available at: <https://www.bmbwf.gv.at/Themen/HS-Uni/Hochschulgovernance/Steuerungsinstrumente/Leistungsvereinbarungen.html>
- BMBWF (n.d.): *Universitätsfinanzierung NEU*. Available at: <https://www.bmbwf.gv.at/Themen/HS-Uni/Hochschulgovernance/Steuerungsinstrumente/Universit%C3%A4tsfinanzierung.html>
- BMBWF (2021): *European Universities: Eben gestartet, schon erfolgreich*. Available at: <https://www.bmbwf.gv.at/Themen/HS-Uni/Aktuelles/European-Universities.html>
- BMBWF (2021): *Soziale Dimension*. Available at: <https://www.bmbwf.gv.at/Themen/HS-Uni/Studium/Leitthemen/SozDim.html>
- BMFWF (2017): *Der Gesamtösterreichische Universitätsentwicklungsplan 2019–2024*. Available at: https://www.bmbwf.gv.at/dam/jcr:4187e064-8213-479d-9c81-d3a1234818d3/GUEP_2019-2024__Kurzversion.pdf
- BMF (2020): *Teilheft. Bundesvoranschlag 2020. Untergliederung 31. Wissenschaft und Forschung*. Available at: https://service.bmf.gv.at/Budget/Budgets/2020/bfg/teilhefte/UG31/UG31_Teilheft_2020.pdf
- Ecker, Brigitte, Campbell, David F.J., Danler, Clemens, Gogola, Gerald (2020): *Universitäten als unternehmerisch handelnde Institutionen. Steuerungsrelevanz finanztechnischer Instrumente und Kennzahlen. WPZ-Research Projektbericht im Auftrag des Bundesministeriums für Bildung, Wissenschaft und Forschung*. Download from <https://www.bmbwf.gv.at/Themen/HS-Uni/Hochschulgovernance/Steuerungsinstrumente/Universitätsfinanzierung.html>
- Humpl, Stefan et al (2021): *Evaluierung der Studieneingangs- und Orientierungsphase (StEOP) nach § 66*. Available at: https://www.bmbwf.gv.at/dam/jcr:8e09e898-e531-440e-9923-5b081335dd54/Endbericht_StEOP_20210210.pdf
- OECD/European Union (2019), *Supporting Entrepreneurship and Innovation in Higher Education in Austria*, OECD Skills Studies, OECD Publishing, Paris. Available at: <https://www.oecd-ilibrary.org/sites/8839f223-en/index.html?itemId=/content/component/8839f223-en>
- University of Vienna (n.d.) *Leistungsvereinbarung*. Available at: <https://rektorat.univie.ac.at/strategie/leistungsvereinbarung/>

A2.2 Bulgaria

A2.2.1 Description of the funding system

A2.2.1.1 Introduction

Over the last eight years the higher education system went through significant changes driven by internal and external factors. One of these major changes is the reform of the funding system introduced gradually in the period 2015 – 2020. The reform has affected 38 public higher education institutions (HEIs) (26 universities, 11 specialised higher schools and 1 self-contained college). The reform of the funding system was accompanied by changes to the rules and procedures for determining the available student places in public universities and the introduction of priority and protected disciplinary fields.

A2.2.1.2 How is the funding system structured? (The shares of formula funding, performance agreements and other funding approaches)

The public universities' funding system is set in the Higher Education Act³⁷. Apart from state funding, the public universities can rely on financial resources provided by municipalities and donations and sponsorships. Own revenues consist of proceeds from research, consulting and artistic-creative activities; application and education fees; postgraduate qualification and other learning activities fees; and income from property rights.

State funding provides support for the educational activities of the university, the research and artistic-creative activities; scientific publications; utilities expenses and capital investments (see 1). The state funding of education activities of public universities in Bulgaria is determined by³⁸:

1. Differentiated standards by disciplinary fields for one student, determined by a resolution of the Council of Ministers. Furthermore, there is an assessment of the performance of each disciplinary field in the university. At least 75% of the revenues from tuition fees and state funding for education activities for the respective disciplinary field, less the total costs for the university, should be used for financing costs for the same field. This share was introduced to achieve the quality standards per programme and prevent misuse of funding.³⁹
2. The number of admitted students and doctoral students;
3. A comprehensive assessment of the quality of education and its compliance with the needs of the labour market, formed on the basis of criteria determined by a resolution of the Council of Ministers⁴⁰, including the results of the assessment in the accreditation of the higher school and its specialties. This determines 60% of the funding of the

³⁷ Chapter 11 of the Higher Education Act (Закон за висшето образование), available at <https://lex.bg/laws/ldoc/2133647361>

³⁸ As prescribed in Article 91 (2) of Higher Education Act, available at <https://lex.bg/laws/ldoc/2133647361>

³⁹ Motives to the amendments to the Higher Education Act introduced with State gazette 98 of 2016, available at <https://parliament.bg/bg/bills/ID/66460>

⁴⁰ Resolution № 328 of the Council of Ministers of 30.11.2015 for determination of state funding for the maintenance of education in public universities depending on comprehensive assessment of the quality of education and its compliance with the needs of the labor market, last amended 1 January 2020, available at <https://www.lex.bg/bg/laws/ldoc/2136691863>

university.⁴¹ This share has been gradually increased since the introduction of the quality assessments in 2015.

4. The implementation of the strategic goals and tasks determined by the university and adopted by the Minister of Education, that are set in a contract between the rector of the university and the Minister of Education. This criterion was introduced in 2020. So far the achievement of the strategic goals and tasks of the university determines only the remuneration of the rector.⁴² However, the Higher Education Act has prescribed that implementation of the strategic goals and tasks should determine the overall funding by envisaging amendment to Resolution № 328.

Legislation provides for a minimum threshold for the state funding for research and artistic-creative activities, which is at least 10% of the amount needed for education activities.⁴³ The criteria include the number and impact of publications and the number of patents. The legislation allows universities to allocate up to 30% of their scientific grant to support international projects.

In Bulgaria, legislation provides also for the possibilities of funding national priorities in higher education through the introduction of National programmes. The programs will be providing extra funding for higher education.⁴⁴ So far, the programmes have not been developed and implemented.⁴⁵

⁴¹ Survey responses

⁴² Interview with an expert at the Ministry of Education and Science

⁴³ Art. 91 (9) of Higher Education Act. See also: Ordinance on the conditions and procedure for the evaluation, planning, distribution and expenditure of the funds from the state budget for financing the scientific work of universities (Наредба за условията и реда за оценката, планирането, разпределението и разходването на средствата от държавния бюджет за финансиране на присъщата на държавните висши училища научна или художественотворческа дейност), promulgated SG No. 73 of 16 September 2016, in force from 1 January 2017, available at <https://www.mon.bg/bg/100193>

⁴⁴ Article 91b of Higher Education Act

⁴⁵ Interview with an expert in the Finance department of the Ministry of Education and Science.

Table 1. Structure of state funding

Education activities	<ul style="list-style-type: none"> • Based on a formula, which accounts for the differentiated standards by disciplinary field, the number of admitted students and doctoral students, a comprehensive assessment of the quality of education, the implementation of the strategic goals and tasks determined by the university. • The comprehensive assessment of the quality of education determines 60% of the funding of the university.
Research activities	<ul style="list-style-type: none"> • The funds for scientific activities amount to no less than 10% of the amount awarded for education activities. • The criteria for determination of funding for research and artistic-creative activities include the number and impact of publications and patents.
Utilities and capital investments	<ul style="list-style-type: none"> • The funds for utilities are determined on the basis of normative acts. • Capital investments are usually co-funded by the state budget based on an annual investment programme adopted by the universities' academic councils. EU funds have also been used to finance new university infrastructure. Capital investments can also be financed by the university's own revenues and donations.
National programmes	<ul style="list-style-type: none"> • State funding may support the implementation of programs for consolidation and development of state universities, developed by universities and adopted by the Council of Ministers.

Source: ICF elaboration

The comprehensive assessment of the quality of each department is based on three groups of indicators: teaching and learning; science and research; career and relevance to the labour market. A complicated rating system is used for this, with several (about 18) indicators that each have their own weight. The indicators cover six areas: teaching and learning; science and research; teaching and learning environment; welfare and administrative services; prestige; career, relevance to the labour market and regional importance.

A2.2.1.3 What are the key goals of the funding system?

One of the priorities of the Strategy for development of higher education for the period 2014 – 2020 was to increase the financing for higher education and its effectiveness by improving the funding model. The revision of the funding model was also meant to address other strategic goals, such as:

- Improving access to higher education and the share of higher education graduates.
- Improving the quality of higher education and its compatibility with the European systems for higher education.
- Establishing a sustainable and effective link between HEIs and the labour market and achieving a dynamic match between supply and demand of graduates.
- Stimulating academic research and market-based innovations.

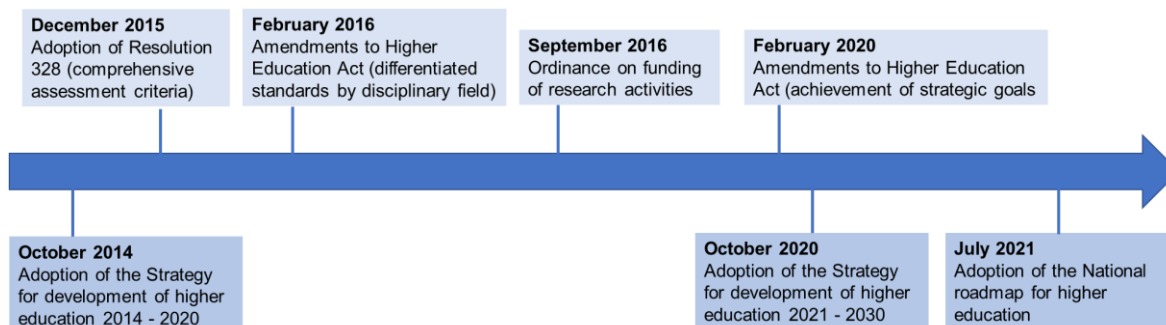
As a result of the strategy, the current higher education funding model was put in place gradually. In particular, in 2016, a results-oriented model of financing public HEIs was introduced. The differentiated standards by disciplinary fields and the respective assessment of the performance of each field were put in place.⁴⁶ Lists of priority

⁴⁶ Interview with the Finance department of the Ministry of Education and Science

professional areas and of protected specialties were adopted. Different types of scholarships and different rules for their provision were introduced.⁴⁷

During the period 2015 - 2020, the total state subsidy for higher education was increased from BGN 323.5 million to BGN 413.8 million per year (+28%), with a decrease in the total number of students enrolled from 264,624 to 223,902 (-15.4%), thus compensating for the sharp decline in HEI funding after the economic crisis in 2008. However, the amount of funding for research was not increased.

Table 2. Timeline of key changes to the funding system



Source: ICF elaboration of Bulgarian strategic documents and legislation

A2.2.1.4 What is/was the motivation/ rationale for the current (PBF) funding system? (issues it aims to address)

Prior to the introduction of the new funding system, there was a vast network of HEIs in Bulgaria (37 public and 14 private) but it was characterised with low quality of teaching and learning, limited added value of academic research and ineffective investments in the sector.⁴⁸ At the same time, the share of graduates in the age group 30-34 was relatively low (26.9%) and many young people were choosing to study in other European Union countries. There was a mismatch between the demands of the labour market and the training that HEIs provided with a considerable number of graduates not pursuing a career in their professional field after graduation. The new formula-based funding system therefore aimed to increase the overall quality of teaching and academic research at HEIs and ensure its relevance for the labour market.

A2.2.1.5 Did any major reforms/ changes take place in recent years?

The key reform of the funding system took place in 2016. The Bulgarian Government introduced a formula-based funding system, which takes into account the quality of teaching and learning activities, the quality of research activities and the relevance of graduates to the needs of the labour market. Currently, the share of core funding of public universities that is directly driven by these performance indicators is 60%, but it has gradually increased since the introduction of the formula. The latest data shows that since

⁴⁷ Background to the Strategy for development of higher education 2021 – 2030

⁴⁸ Background to the Strategy for development of higher education 2014 – 2020.

the introduction of the rating system, some public universities have improved their performance score.⁴⁹

In 2020, the Higher Education Act introduced management contracts between the Minister of Education and Science and the rectors of the universities. These management contracts include strategic goals and tasks agreed by both the university and the Ministry of Education and Science. Currently, the implementation of these contracts is determining only the level of remuneration of the rectors, but the 2020 amendments of the Higher Education Act prescribe that the assessment of the implementation of the strategic goals and tasks should be incorporated in the quality assessment methodology. The Strategy for development of higher education 2021 – 2030 also envisages the management contracts to guarantee reforms in universities and their responsible and effective governing.⁵⁰ To that end, legislative amendments guaranteeing that the state funding is linked to implementation of the management contracts are envisaged in the next three years.

A2.2.2 Does the (PBF) funding system work?

A2.2.2.1 What are the positive (intended) and negative (unintended) effects of the system in terms of the three missions (education, research, engagement) of higher education institutions?

According to three interviewees⁵¹ the funding formula has contributed to improving the quality of education and research of most public universities. The background analysis to the Strategy for development of Higher Education in the period 2021-2030 also confirms this.⁵² The overall assessment of universities in the rating system has been increasing in the last years.⁵³ At the same time, the weight of the number of students in the funding formula decreased. Some universities prioritised, albeit to a limited extent, their student admissions to disciplinary fields where there is shortage in the labour market.⁵⁴ However, stronger effects of the introduction of the formula might be more visible in the coming years, as the share of performance-based funding increases gradually from 30% in 2016 to 60% in 2020. There are indications that in 2020, there is still a quantitative mismatch between graduates and the labour market⁵⁵ and concerns about the contents of educational programmes, for instance in humanities, social sciences and economics.

In addition, the system still has its deficiencies. Due to the structural regional inequalities in the country's economy and the labour market, as well as internal migration processes, the universities in Sofia get higher scores and respectively funding, which do not always reflect improvements in their education and research activities.⁵⁶ A report suggest that

⁴⁹ <https://rsvu.mon.bg/rsvu4/#/>

⁵⁰ Implementation plan for the Strategy for development of higher education 2021 – 2030.

⁵¹ Interview with Higher Education Directorate of the Ministry of Education and Science, the Finance Directorate of the Ministry of Education and Science; and the Technical University.

⁵² Background to the Strategy for development of higher education in the period 2021 – 2030.

⁵³ <https://rsvu.mon.bg>

⁵⁴ Background to the Strategy for development of higher education in the period 2021 - 2030

⁵⁵ Global Metrics (2020) Establishing a sustainable and effective link between the HEIs and the labour market, available at <https://rsvu.mon.bg/rsvu4/#/documents>

⁵⁶ Global Metrics (2020) Modernisation of the system for HEIs management and profiling of HEIs, available at <https://rsvu.mon.bg/rsvu4/#/documents>

some HEIs introduce educational programmes in fields, which do not reflect their specialisation, only to attract state funding by increasing the number of their students.⁵⁷ This increases the risk of lowering the quality of teaching activities and reduces the opportunities for generating quality scientific research. In this regard, experts suggest that the weights for the indicators in the formula should be revised to reflect the regional specificities.

The state funding still depends considerably on the number of students enrolled in the university.⁵⁸ Thus, the current funding system still does not allow the university to decrease the number of admissions and keep a high level of standards to which students should adhere in order to graduate.⁵⁹

A dedicated analysis of the current funding formula concluded that it does not stimulate universities enough to increase their quality.⁶⁰ The current construction of the formula cannot be used as a mechanism for balancing the provision of educational services with national labour market needs. In particular, some experts state that the assessment of the learning process and the research activities is dominated by two indicators: the accreditation score and the citation index.⁶¹ In addition, the weight of the indicators characterizing the labour market position of graduates do not correspond to their significance to the labour market, with the unemployment rate carrying too much weight. The formula does not take into account that the realisation of graduates is influenced by factors which cannot be influenced by HEIs.⁶² There is a discrepancy between the efforts made by the HEI and the result obtained, which greatly reduces the stimulating effect of the formula.⁶³

Experts pointed out that while the idea of protected professional fields, for which a lump sum is available per student irrespective of the comprehensive assessment, is good, in these professional fields not a lot of improvements in terms of quality of education have been achieved.

A2.2.2.2 What are effects on inclusion, innovation of Teaching & Learning and on transnational collaborations?

The formula-based funding has not contributed to improving the inclusion in higher education of vulnerable groups, as at the time of its adoption it did not recognize inclusion as a challenge to the higher education system. In the period 2010 – 2015 the decrease of the number of secondary education graduates was combined with an expansion of the network of HEIs, which led to high number of places available to candidates. Thus, the funding model introduced in 2015 aimed at stimulating quality rather than quantity. The new Strategy for development of higher education for the period 2021 – 2030 recognizes that there is a need to overcome the existing socio-regional inequalities in the access to higher education by supporting the preparation of candidates from vulnerable groups and from certain regions.⁶⁴

57 Ibid

58 Background to the Strategy for development of higher education in the period 2021 – 2030.

59 Global Metrics (2020) Modernisation of the system for HEIs management and profiling of HEIs.

60 Ivanov, Stefan (2016) Funding system of HEIs in Bulgaria, available at <https://rsvu.mon.bg/rsvu4/#/documents>

61 Ibid.

62 Ibid.

63 Ibid.

64 Implementation plan to the Strategy for development of higher education in the period 2021 - 2030

The formula-based funding has not contributed significantly to the innovation of teaching and learning, as the indicators used in the funding formula do not reflect this need. At the same time, the 2020 analysis of the state of higher education in Bulgaria shows a lack of recognition of the added value of higher education due to outdated curriculums, their limited links to the needs of the labour market, their predominant theoretical focus and lack of opportunities for gaining practical skills.⁶⁵ This has been coupled by the lack of opportunities for students for more personalized learning. One of the identified challenges in 2020 is also the lack of flexibility in initiating and management of programmes in contemporary disciplines, such as AI, AR, VR.⁶⁶ Many public HEIs are not sufficiently active in offering retraining and practice-oriented short-term courses that provide quick access to the labour market.

The formula-based funding has not contributed significantly to intensifying transnational collaborations as the indicators used in the funding formula do not directly reflect this need. Nevertheless, some indicators related to transnational cooperation are part of the institutional accreditation assessment and its grade is included among the funding indicators. Some of the indications related to internationalization include the mobility of academic personnel, the number of participations in international scientific conferences, the number of international research contracts, the number of publications in international journals, opportunities for students' exchange, and partnerships with foreign universities. Improvements on these indicators vary significantly across disciplinary fields and different universities. For example, in the medicine field, in the period 2016 – 2020, the Medical University in Varna decreased its score on international mobility while the Medical University in Plovdiv improved it.⁶⁷

The Bulgarian university rating system also provides university-level information on a number of indicators related to transnational collaboration (such as international mobility, joint programmes with foreign universities, assessment of mobility opportunities), which could be of help for students when choosing their HEIs.⁶⁸

A2.2.3 Data collection and performance monitoring

A2.2.3.1 Is there evidence to support the positive/negative effects touched upon in the previous question?

The main evidence for the above listed positive and negative effects are the analyses of the challenges for the higher education system based on data from the Bulgarian University Ranking System.⁶⁹ In 2020, these analyses were generated under the project “*Carrying out analytical activities based on annual results of the Bulgarian University Ranking System*”, funded by the Operational Programme “Science and Education for Intelligent Growth”. Previously, the Operational programme also supported an analysis and evaluation of the formula-based funding system.

Evidence is also available in the background analysis on the challenges before higher education in Bulgaria accompanying the Strategy for development of higher education in the period 2021 – 2030. It examines the results of the implementation of the strategy for the period 2014 – 2020, which envisaged several results related to financing – increase of the GDP share allocated for science and higher education; and the development of a

65 Background to the Strategy for development of higher education in the period 2021 - 2030

66 Ibid.

67 <https://rsvu.mon.bg>

68 Methodology of the Rating system of HEIs in Bulgaria

69 <https://rsvu.mon.bg/>

financing model oriented towards the results of teaching and learning, and graduate employment. Regarding these results indicators, the analysis showed that in the period 2015 – 2020 the total annual state subsidy for teaching activities increased with 28% and the number of students decreased with 15.4%.⁷⁰ However, the financial resources allocated to science and research over the same period did not increase.

This background analysis supports the drafting of measures for increasing the effectiveness of the funding system in Bulgaria and improving the overall organisation and effectiveness of the higher education system. It lists several expected results of the implementation of the new strategy related to the funding system:

- Increased overall funding for higher education – with 20% annually for teaching and learning activities and with 10 million leva for science and research until 2030.
- Introduced a financial model which stimulates quality teaching and learning and high-quality science and research results.
- Lowering the number of student admissions in professional fields with a low quality of teaching and learning provision.
- Lowering the number of professional fields with a low quality and a low level of graduates' success on the labour market.

A2.2.3.2 How are the effects of the funding system (its impact on performance) monitored?

The main data source on the performance of each HEI in Bulgaria is available via the Bulgarian University Ranking System.⁷¹ The main purpose of the system is to help stakeholders in finding comparative information on higher education institutions in Bulgaria. The system collects information on all indicators included in the current funding formula, as well as other indicators related to teaching and research activities of the universities. Thus, it also supports the monitoring of the funding system. The performance on each indicator over the last 8 years can be traced at university and programme level. The Bulgarian University Ranking System is also an information system, which provides full access to a significant volume of primary data and ensures transparency with regards to the weights assigned and the calculation procedures used in the funding formula.

To accumulate and systemise data on the indicators, the Ranking system relies on the following sources of information: data from the AdminUni module, which is part of the Education Information System; National Social Security Institute (NSSI) data; National Evaluation and Accreditation Agency data (NEAA); National Centre for Information and Documentation (NACID) data; data for joint programs with foreign universities, provided by the higher education; data from the Scopus and Web of Science international database; data obtained through surveys among students, Higher education institutions academic and administrative and managerial staff; data obtained through surveys among employers that hired graduates from higher education institutions in Bulgaria in the last five years.

A2.2.3.3 What data (which indicators) are collected? (What data is exchanged between HEIs and funding agencies?)

⁷⁰ Background to the Strategy for development of higher education in the period 2021 - 2030

⁷¹ <https://rsvu.mon.bg/>

The complete list of ranking and information indicators of the Bulgarian University Ranking System is grouped in 6 areas, that is: Teaching and learning; Science & Research; teaching & learning environment; welfare & administrative services; selectivity & satisfaction; relevance to labour market & regional importance.

A2.2.3.4 Are there plans to revise the data collection to make it more useful for policy-makers and/or to reduce the administrative burden?

No major reforms of the Bulgarian University Ranking System are envisaged. However, one of the measures set in the Strategy for development of higher education in the period 2021 – 2030 foresees the development, improvement and integration of the higher education registers of the National Centre for Information and Documentation, which are one of the data sources of the Ranking system.

In addition, the new Strategy prioritises the enhancement of the effectiveness of the internal quality assurance systems within universities. It also envisages that universities should introduce mechanisms for decision making based on analysed and systemised data received through feedback of students, professors and employers. Other planned measures that might affect the data collection of indicators included in the funding formula include the reform of the accreditation system. The planned reform foresees the adoption of clear and objective indicators for the different accreditation procedures and the creation of a common electronic platform (all HEIs, NACID, the Ministry of Education and Science and National Evaluation and Accreditation Agency data) containing the data needed in the accreditation procedures.⁷² This is expected to decrease the administrative burden on HEIs when undergoing the accreditation assessment and further simplify the feeding of data into the accreditation-related indicators of the Bulgarian University Ranking System.

A2.2.4 Funding the EUI

A2.2.4.1 Does the national funding system support the goals of the European Universities Initiative (EUI)?

Public universities belonging to European University Alliances have received additional national funding to cover the co-financing needed to participate in the Alliance. There have been no additional conditions introduced by the Ministry of Education and Science to cover this co-financing. The Bulgarian universities belonging to European University Alliances stated that they have not received financial support from the Ministry of Education and Science to fund the application process. The two private universities that belong to European University Alliances have not received any national funding and they are co-funding their activities from their own resources.

The Strategy for development of higher education 2021 - 2030 sets as an objective the internationalization of higher education and participation in international educational and scientific networks. Among the activities listed under this objective is the building of functioning networks between Bulgarian and foreign universities on the basis of jointly implemented activities. A specific measure under this activity is to encourage universities to actively participate in the European Universities Initiative. The instruments to encourage this participation include information meetings and a coordination mechanism. The

⁷² Implementation plan to Strategy for development of higher education in the period 2021 - 2030

implementation plan envisages the measure to be supported financially by the State budget and the future Operational programme “Education” (2021-2027). Interviewees, however, were not able to provide an answer about the extent to which the future government would be willing to fund the Initiative.⁷³ The representative of the private university expressed hope that they would be able to secure public funds to co-finance their participation in the European Universities Alliances.

In terms of internationalisation of higher education in Bulgaria, the Strategy envisages measures for supporting a multicultural social and educational environment, including offering foreign language educational programmes, publishing textbooks in foreign languages, and the harmonisation of curriculum with that of foreign universities.

A2.2.4.2 Is there a debate on changing (increasing) the national funding for supporting transnational collaborations between HEIs, or on changing the criteria for that support, e.g. conditions, flexibility, time period?

The Ministry of Education and Science has co-funded the participation of Bulgarian public universities in European Universities Alliances without introducing any additional criteria for the support. No additional support for the initiative has been discussed on top of the provided co-financing. While transnational collaborations are heavily supported in the Strategy for development of higher education 2021 – 2030, decisions on specific conditions and time periods would be taken by future governments and there are no current debates on concrete parameters of government support.⁷⁴

The two private universities in Bulgaria participating in the European Universities Alliances have discussed the issue of requesting national funding, as they have not received any national co-financing. The issue was also discussed at a meeting of the rectors participating in the Association of private universities in Bulgaria in the summer of 2021. They are planning to request a meeting with the minister of education and science once a regular government is formed.⁷⁵

A2.2.5 Lessons and challenges

A2.2.5.1 What are the main lessons that can be drawn from the past when it comes to the functioning of the (PBF) funding system? What worked particularly well – or not so well?

The establishment of the Bulgaria University Ranking System with EU funding allowed the collection of information on the performance indicators included in the funding formula,

⁷³ Interviews with the Ministry of Education and Science, and representatives from a public university, a private university and a private college.

⁷⁴ Interview with a deputy rector of a public university, Interviews with representatives from a private university

⁷⁵ Interview with a representative from a private university

while at the same time this provided candidate students with an opportunity to make an informed decision about their higher education.⁷⁶

While the funding system improved some aspects of the teaching and learning activities, it has had limited effects on increasing the quality of science and research. One of the reasons might be that the research indicators included in the formula might not be sufficient to measure the quality of research activities.⁷⁷ The selection of several citation indicators with an overall weight of 20% is visible in the results of HEIs in various disciplinary fields.⁷⁸ In practice, HEIs in half of the disciplinary fields have no or almost no results. This raises the question of the comparability of professional fields on the basis of this indicator. The reasons may lie in the different nature of research, the different subject and object of research and the degree of their internationalization.⁷⁹

One of the main disadvantages of the current funding system is that it might exacerbate regional inequalities and limit funding to some important regional HEIs due to circumstances that universities cannot influence. Experts have also pointed out that the indicators on the realisation of graduate employment largely depend on external factors which the respective HEI cannot influence. Thus, linking their level with the current funding of HEIs is not entirely justified.⁸⁰

A2.2.5.2 What are the perceptions of the key stakeholders on the main challenges?

The main perception of interviewed stakeholders⁸¹ is that the current funding system is relatively well-accepted and has started to yield some positive results in terms of increasing the quality of teaching and learning at universities and ensuring a better match between graduates and the demands of the labour market. At the same time, some revisions to the current formula might be made, which should consider the priorities in the new Strategy for development of education for the period 2014 – 2020. The formula is also set to incorporate the recent amendments to the Higher Education Act, which envisage the funding to be partially determined by the implementation of strategic goals set in management contracts between the rector and the Minister of Education and Science.⁸²

76 Interviews with the Ministry of Education and Science.

77 Interview with the finance department of the Ministry of Education and Science.

78 Ivanov, Stefan (2016) Funding system of HEIs in Bulgaria, available at <https://rsvu.mon.bg/rsvu4/#/documents>

79 Ivanov, Stefan (2016), Interview with an expert at the finance department of the Ministry of Education and Science

80 Ivanov, Stefan (2016) Funding system of HEIs in Bulgaria, available at <https://rsvu.mon.bg/rsvu4/#/documents>

81 Interviews with the Ministry of Education and Science, Interview with the finance department of the Ministry of Education and Science, Interview with a representative of a public university

82 Interview with the finance department of the Ministry of Education and Science.

A2.2.5.3 What other policies and initiatives can be held responsible for the (non)-performance of the system? How do they work as incentives?

The reform of the funding system was accompanied by initiatives to improve the interaction with businesses, such as internship programmes and involvement of practitioners in the teaching activities.⁸³ For example, some of the technical universities managed to create partnerships with businesses, which resulted in financing of laboratories, equipment, scholarships and overall support to the teaching activities.⁸⁴ Such initiatives could have had more tangible results on linking higher education with the needs of the labour market than the current funding formula.

In terms of research, the introduction of performance-based funding coincided with several projects for developments of scientific infrastructure⁸⁵ and signing of memorandum for participation in some pan-European infrastructure⁸⁶. These projects and international funding for research could have contributed more to the research activities of Bulgarian universities than the current funding formula

Some of the external risks to the funding mechanism not achieving its goal of improving the quality of teaching and education at HEIs in Bulgaria are:

- The demographic problems that lead to a decrease of the number of applicants, the lowering of admission criteria and, thus, the quality of teaching and education.⁸⁷
- Insufficient competitiveness in terms of rapid development of the educational services market and lack of sufficient flexibility of Bulgarian universities in provision of different training forms compared to European universities.⁸⁸

A2.2.5.4 Do stakeholders hold different opinions on the changes to be made to the funding system?

The interviewed stakeholders were all unanimous that the funding reform which gradually increased the share of performance-based funding to 60% was much-needed and a bit overdue.⁸⁹ At the same time, not all of them consider that the selected indicators reflect accurately the quality of teaching and research activities at universities.⁹⁰ Nevertheless, as the 60% share of performance-based funding was reached last year, any changes to the indicators should be made after a few years have passed and a careful assessment of all factors that influence the quality of university services. Discussions on how the implementation of strategic goals of the universities will be incorporated in the comprehensive assessments are also expected to take place.

83 Strategy on the development of higher education 2014 – 2020.

84 Background to the Strategy for development of higher education 2021 - 2030

85 Financing of centers of excellence and centers of competence through EU fundings (BGN 350 million) and BGN 33 million (through the National Roadmap for Scientific Infrastructure)

86 CLARIN, EATRIS, BBMRI, EPOS, DARIAH, Euro-Argo, ACTRIS, Euro-BioImaging

87 Interview with a representative from a private university

88 Background to the Strategy for development of higher education 2021 - 2030

89 Interviews with the Ministry of Education and Science, the finance department of the Ministry of Education and Science, a representative of a public university, and representatives of a private university.

90 Interview with the finance department of the Ministry of Education and Science, and a representative of a public university.

A2.3 Denmark

A2.3.1 Description of the funding system

A2.3.1.1 Introduction

Higher education in Denmark is taught at universities, university colleges and academies of professional higher education. There are five types of HE:

- Business academies offering professionally oriented short cycle and first cycle degree programmes (eight institutions).
- University Colleges (*Professionshøjskole*) offering professionally oriented first cycle degree programmes (eight institutions).
- Maritime Education and Training Institutions offering professionally oriented short cycle and first cycle degree programmes (11 institutions).
- Research universities (general and specialised, 8 universities)
- University level institutions offering first, second and third cycle degree programmes in subject fields such as architecture, design, music, and fine and performing arts (multiple institutions).

The universities offer research-based higher education at Bachelor, Master and PhD level, and are responsible for the majority of all public research in Denmark. Danish universities are autonomous, self-governing public institutions, referred to as 'state-financed self-owning institutions', governed by boards with external majority. The University Act of 2018 (article 1) stipulates that a university must ensure equal interaction between research and education, perform ongoing strategic selection, prioritisation, and development of its academic research, and disseminate knowledge. It must also collaborate with external partners and engage in international collaboration. The case study focuses on universities.

A2.3.2 How is the funding system structured?

Danish universities revenues is composed by six categories. Funding of education, basic funding for research and external research funding account for 90%. The remaining 10% is composed by research-based service to government institutions, other grants, and other income⁹¹.

Danish universities primarily finance education and research with public funding. The universities receive a lump sum (block grant) constituted by the funding of education and basic funding for research. Resources can be allocated by the universities across their activities. The block grant represents 58% of total university funding⁹². External research funding (EU, national public competitive grants, and private grants) represents in the range of 31%. Tuition and other student fees represent some 2% of income.

The block grant is composed by educational and research grant elements, each being subject to its own formula. The clear separation between funding for research and funding of education activities is in place since 1982.⁹³

Higher education funds (formula)

⁹¹ Danske universiteter (2020) Tal om danske universiteter 2020 available [here](#)

⁹² Calculated based data from [Universiteternes Statistiske Beredskab](#)

⁹³ Aagaard, Kaare (2017) The Evolution of a National Research Funding System: Transformative Change Through Layering and Displacement, In: *Minerva*, Vol. 55, No. 3, 01.09.2017, p. 279-297.

The Government grants allocated to higher education is mainly determined by student activity. The Government grants for HE (i.e., education not research) is determined by the 2017 reform that went into effect on the 1/1 2019. With the grants reform, approximately 75% of the educational funding is flexible, and varies from year to year depending on the study outputs and results of the universities. The remaining 25% is fixed.

The composition of HE is funding (universities), may be summarised as follows:

- **Student Activity Based Grant (+/- 67.5%).** All passed examinations are reported and converted into student full time equivalent (FTE), which equals one year of the prescribed period of study (60 ECTS points). Each FTE elicits a fee to the universities (Taximeter) based on the rate of the subject (which vary depending on the nature of studies – with technical scientific ECTS points generate a higher grant).
Exchange students triggers a specific taximeter based on the number of incoming exchanges students – and a much smaller grant for outgoing students)
- **Results Based Grant (+/-7.5%)** Note that result based grants are currently suspended⁹⁴ due to the Covid pandemic). Two indicators determine the results-based grant⁹⁵: Duration of study and employment
The employment indicator measures the rate of employment amongst graduates against the general employment rate.
The duration of study indicator measures the average time for students to complete their studies against each institution's baseline target⁹⁶
- **Basic educational funding (+/-25%)** The basic funding for higher education is a (four year) fixed grant allocated annually. The Grant is calculated as 25% of the educational funding allocated to the individual institution in 2017. Of this basic grant⁹⁷ 5 percent points (i.e., one fifth of the total basic grant) is dependent on an overall assessment of the extent to which the educational institution has fulfilled the strategic framework contracts (evaluation in dialogue with the institutions), 5 percent point are dependent on overall quality measurement (survey-based measurement)
- **Quality Fund (<1%)** which is the funds that remain after the allocation of the results-based grants are allocated as quality grants. The quality grants are meant to support specific quality initiatives.
- **Other (small scale) fixed grants (<0.5%):** Grants for higher education offers outside of the main Danish university cities (represent about 1.66 M EUR to the Danish universities⁹⁸) and continuation of "special grants" for small scale educational offering (about 0.84 M EUR).

The **Basic educational funding** is linked to the strategic framework contracts between the universities and the Minister for Higher Education and Science. A strategic framework contract is an institution-specific four-year contract concluded between the minister and the chair of the university board on behalf of the board of directors of the institution. The contracts set out university specific priorities and strategic goals. Each goal is associated with university specific indicators, on which each university reports.

A renegotiation of goals and indicators possible (in case of unforeseen circumstances and when both parties agree). Negotiations conducted by the chair of the institution's board

⁹⁴ Uddannelses og forskningsstyrelsen, Uddrag fra styrelsens brev af 18 juni 2020 om udmøntningen af 'Aftale om flere uddannelsespladser på de videregående ud-dannelser i lyset af COVID-19

⁹⁵ Each of the result-based grants, generates about 3.4% of total grants

⁹⁶The baseline target consists of the prescribed lengths of the offered programmes plus 3 months

⁹⁷ Uddannelses- og Forskningsministeriet *Nyt bevillingssystem for de videregående uddannelser*, 2017

⁹⁸ Uddannelses- og Forskningsministeriet *Decentrale Tilskud*

and the ministry's director-general. Current contracts run from 1 January 2018 to 31 December 2022.

Research funding system (basic funding for research)

The Government grants allocated to universities for research purposes, are mainly base allocations. The base allocations, consist partly of a fixed basic amount, which is continued from year to year, and partly of allocations which are defined based on performance indicators. The share of funds which are allocated based on performance is increased every year, with 2% of the fixed base reallocated annually to the performance base. This system was put in place in 2006 and reformed in 2009⁹⁹.

in 2020, 85% of the base grant was allocated under the fixed basic amount, and 15% were allocated based on performance¹⁰⁰. The performance-based grant is distributed using the following indicators:

- 45% is distributed according to education grants;
- 20% is distributed according to research activities funded by external funds;
- 25% is distributed according to research bibliometrics
- 10% is distributed according to the number of completed PhDs

External research funds and other funds

Besides the research base grants, public funds are allocated to:

- Sector related research
- Competitive research grants
- Research based support to public authorities

Competitive research grants are provided by Independent Research Fund Denmark¹⁰¹ which funds specific research activities based on researchers' own initiatives, and the Innovation Fund Denmark¹⁰² which aim strengthen and foster strategic research and innovation projects in Denmark. There are also other (small scale) public contributions.

A2.3.3 Key goals of the funding system and major reforms in recent years

Goals of the educational funding system and reforms

By 2010, public funding was largely composed by the Student Activity Based Grants, the so called "taximeter grants" (90% of grants), coupled with universities bonus for quick completion.

The implementation of the taximeter grants (which continue to be core to the Danish funding model) reflects three overarching aims¹⁰³:

- The use of a financial management model that was oriented towards results and incentives. Through taximeter funding the immediate results of the institutions (as measured by student activity) is funded. By focusing on student outputs, the model is also seen as an incentive to adapt the offer to the demand, increase the educational offer and to increase the educational efficiency.

⁹⁹ See Uddannelses- og Forskningsministeriet [Basismidler efter resultat](#)

¹⁰⁰ [Forskningsmidler](#) — Uddannelses- og Forskningsministeriet ([ufm.dk](#)) and [Basismidler efter resultat](#) — Uddannelses- og Forskningsministeriet ([ufm.dk](#))

¹⁰¹ [Independent Research Fund Denmark](#)

¹⁰² [Innovationsfonden](#)

¹⁰³ [Undervisningsministeriet, 2008 Fakta om taximeterstyring](#)

- The continued adaptation of the educational offer, automatically transferring funding from education in recess to education in expansion. Hereby the model also supports the free educational choice of students.
- Avoiding increasing overhead costs of educations with decreasing student intake (maximising student efficiency).
- The completion bonus was introduced in 2009 as an incentive to get students faster through the education system.

There have been two reforms of educational funding between 2010 and 2020. In 2013, the so called “Progress-Reform” (implemented as by 2014) introduced policies meant to increase study completion in higher education and, especially, to reduce exceedance in time to completion. Measures included incentives and restrictions through student financial assistance, and clear requirements for course-loads. Among the key reform elements was the inclusion of institutional funding for study completion (number of degrees within the stipulated time-to-degree +3 months), which represented in the range of 10-17% of the total educational envelope¹⁰⁴. Study grants allocated to students (SU) were also reformed as part of the progress reform, as to encourage quick completion¹⁰⁵.

The funding for education was subject to further reform in 2017 that went into effect on the 1/1 2019¹⁰⁶. The 2019 is a major reform of the allocation of institutional funding in higher education. The aim was to enhance quality and increase focus on employment – decreasing focus on quantity in education. Under the new model, institutions receive three main types of grants, as outlined above (Student Activity Based Grant/taximeter grant; Results Based Grant and Basic educational funding). The main principles are:

- An institutional lumpsum which is set at 25% of total public funding, to which strategic framework contracts is associated. The lumpsum is defined based on historical funding (incremental funding)
- Continuity of taximeter funding for education, but at decreased levels (to around +/- 67.5%)
- Expansion of the results focus, to cover both completion and employment and performance (previously only study completion). The budgets allocated to results decreased overall from between 10-17% to max 10%. Focus on completion remains (with full bonus provided when students complete within “planned period of study+3 months)

Additional top up funding for education outside major university cities (Copenhagen, Aarhus, Odense and Aalborg).

Educational funding has further been subject to a broad political agreement in June 2021, the so-called *Political agreement on the framework for More and better educational opportunities throughout Denmark (Delocalisation agreement)*¹⁰⁷. This agreement which will adjust funding of HE in Denmark. The aim is to support delocalisation of HE across all types of HE institutions, ensuring that HE offers are available outside of the main HE towns in Denmark (Copenhagen, Aarhus, Odense and Aalborg). Key elements of this reform, include:

- A regional “top up” taximeter, for education outside the major cities which will be raised by 5 percent top-up in 2023 increasing to 7 percent top up from 2027 onwards.

¹⁰⁴ Uddannelses- og Forskningsministeriet [Bedre uddannelser og mere frihed til institutionerne med ny reform, 2017](#) pressemeldelse

¹⁰⁵ See Uddannelses- og Forskningsministeriet, [Historien om SU](#)

¹⁰⁶ Forskningsministeriet [Bedre uddannelser og mere frihed til institutionerne med ny reform, 2017](#) pressemeldelse

¹⁰⁷ See 2021 Uddannelses- og Forskningsministeriet [Politisk aftale om rammerne for Flere og bedre uddannelsesmuligheder i hele Danmark](#)

- Doubling of the basic subsidy for decentralised education offers (i.e. outside of major cities)
- The creation of 23 specific new HE offers outside of major cities.
- An investment and establishment pool of DKK 537 million.
- a 10% cut in the maximum number of student places in the main university cities over a decade¹⁰⁸,

Also in June 2021, a political agreement was made covering discontinuation of certain HE degrees in English¹⁰⁹. This agreement is intended to address the increases in EU citizens which are using the opportunity to obtain Danish student grants (the so-called SU) and which has implied that SU expenses for that group of students have risen sharply in recent years. The savings generated through these cuts, will be used to fund the delocalisation initiatives.

Goals of the research funding system (base grants) and reforms

Research funding is guided by the principle of stability. This is expressed in high share of incremental funding (determined on the basis of history). Allocations, consist partly of a fixed basic amount, continued from year to year (incremental funding), and partly of allocations based on performance indicators (see above).

Incremental funding, however, is decreased year by year basis with 2% of the fixed funds, reallocated to “result funding” (funding formula). In 2020, 85% of research allocations were fixed¹¹⁰. The remaining share is redistributed based on the 45-20-25-10 model, presented above. The core aims of the four indicators were to:

- Support HEI in providing research-based education (education grants indicator)
- Attract external research funding and support top quality research (indicators covering research activities funded by external funds)

To reward universities for their research production (research bibliometrics indicator). The indicator also had the objective of supporting research quality and giving universities an additional incentive to publish through recognised peer-reviewed journals

To support capacity building and training of future researchers (indicator: number of completed PhDs). The indicator also the target to double the number PhDs, a target which was set out in the so called Globalisation Agreement.

This system was put in place in 2006 and reformed in 2009¹¹¹. The 2009 reform included the research bibliometrics indicator as a new metric, adjusting the 2006 result funding formula. The model was evaluated in 2012, where it was agreed to continue the funding model for another 5 years.¹¹²

In early 2018, the Danish government formed an advisory group of experts to present proposals for a new funding model to increase the quality of Danish research. The advisory group identified further indicators of research quality to be included in a new funding model (as part of performance funding). The advisory group presented its recommendations in a report to the Danish government in 2019¹¹³. Further reforms are in the process of negotiation, but the content and details are not currently known. However, it is understood that that the current intention is that basic funds should continue to be

¹⁰⁸ See Uddannelses- og Forskningsministeriet [Bred politisk aftale om bedre muligheder for uddannelse i hele Danmark](#)

¹⁰⁹ See Uddannelses- og Forskningsministeriet [Aftale om reduktion af engelsksprogede videregående uddannelser, 2021](#)

¹¹⁰ Uddannelses- og Forskningsministeriet [Basismidler efter resultat](#)

¹¹¹ Ibid

¹¹² Ibid

¹¹³ See Uddannelses- og Forskningsministeriet (2019) [Fremtidssikring af forskningskvalitet Ekspertudvalget for resultatbaseret fordeling af basismidler til forskning](#),

allocated, while a part should be distributed following new performance criteria promoting research quality¹¹⁴.

Other public funding

Base grants are not targeted or earmarked specific sectors. However, the Danish state also supports research, in targeted areas. This funding is provided both via sector related funding (Representing 1% of HE institutions income and 3% of the non-competitive public research funding) and competitive public research grant funding which represent 10% of total HE institutions income.

A2.3.4 What is/was the motivation/ rationale for the current (PBF) funding system?

Funding for HE

The 2017 funding reform of HE had the stated objective to address the previous funding model's focus on quantity in the higher education system (and associated criticism of the 2013 Progress Reform, see below).

Quantitative performance (increasing the numbers, shares students receiving a degree, and time to completion), was seen as achievements of the Progress Reform¹¹⁵, reflecting the targets set for students in higher education. However, the taximeter systems, and completion bonus, what also seen to generate a too narrow focus on student quantity and completion.

As such, the aim in 2017 was to enhance quality, provide increased funding stability, increase focus on employment and decrease focus on time to completion. A core element was the inclusion of the base funding, which would be linked to the newly established strategic framework contracts. The strategic framework contracts would set out the overall direction of the universities, the priorities of each institution along with goals and performance measures. The intent was also to showcase how the HEIs contributes to the achievement of important societal objectives.

The strategic framework contracts were a continuation of past “development contracts” which previously has been put in place between the State and the HE institutions, but which had not been linked to funding. However, the contracts were substantially altered as part of the reform. There was a need for a stronger strategic dialogue where the institutions' strategic plans are leading. The new contracts also responded to criticism of the past approach in which several objectives laid down in the contracts were imposed by the Ministry. The institutions saw the objectives imposed by the Ministry as a violation of their policy autonomy and, more importantly, the objectives imposed by the Ministry regularly fitted in badly with the institutions' strategies¹¹⁶.

Reflecting the focus on quality, a specific quality Fund was also set up, Earmarked funding was also allocated was also to reinforce STEM HE as was additional funding for education outside major university cities.

Research funding

Research funding reflects firstly objectives of continuity. Fixed base funds are perceived as being of great importance to the budget security of HEIs enabling long-term planning.

¹¹⁴ Uddannelses- og forskningsministeriet, Nyheder 2019 [Eksperbidrag til ny model for fordeling af universiteternes basismidler](#)

¹¹⁵ See Uddannelses- og Forskningsministeriet, Klare rammer, bedre balance, Nyt bevillingssystem for de videregående uddannelser, 2017

¹¹⁶ Ben Jongbloed & Harry de Boer (2020) [Performance Agreements in Denmark, Ontario and the Netherlands](#). Report for the project Evaluation of development contracts in Norwegian higher education

This is found in literature and was affirmed in our interviews. Base funds are also seen as significant for structural changes providing the foundations for adaptation to changing conditions. Finally, a key rationale base grants is their importance for the quality and outcome of basic research.

Performance criteria so as to support quality, however, have been given increased weight over the last decades, with public funding gradually being transferred from incremental funding to funding against a set of performance indicators. The key rationale has been to strengthen incentive mechanisms.

A2.3.5 Does the (PBF) funding system work?

A2.3.5.1 What are the positive (intended) and negative (unintended) effects of the system in terms of the three missions (education, research, engagement) of higher education institutions?

Education grants

Judging from the interview feedback and available documentation,¹¹⁷ the assessment of the current funding system is (i.e., the 2017 reform) among HE institutions, is mixed, with the model presenting strengths but also some weaknesses.

From the perspective of the HEI, the following aspects are considered strengths of the funding model:

- Overall continuity of the principle of self-governance and autonomy in the use of funds.
- Continuity of the taximeter system as the backbone of the funding system, and which overall is considered as being well-functioning
- Availability of a stable baseline fund, ensuring a baseline budget security of HEIs, enabling them long-term planning, and this irrespectively of the number of students

Flexibility in the strategic framework contracts, focusing on objectives and targets defined by the HE institutions and an overall greater focus on quality.

Relevance of the performance/result indicators – and, especially, the objectives which the indicators are expected to support

A main perceived challenge with the 2017 HE funding reform is that it overall represents a total funding cut of HE (of 2%). As such quality ambitions are not followed with (additional) funding. Other key challenges reported by HEIs relate to:

The implications of funding transfer from taximeter grants to baseline grants which in practice provide less opportunities for universities to change path. The previously taximeter focused grant model linked the essence of HE funding to student activity (90%). In the current model, student activity is funded through base grants built on historical data (which remain fixed for a five-year period) and a decreased taximeter grant (reflecting the new base grants). The model implies that increases in student uptake, are not followed sufficiently by funding increases. Student increases generate additional taximeter funding – but not changes to the base funding. As such the model disincentive increase in student

¹¹⁷ See for example University World News (Myklebust, 2017), Performance-related university funding reform agreed, see: <https://www.universityworldnews.com/post.php?story=20171201152155351> and Akademikernes h ringssvar vedr. nyt bevillingssystem for de videreg ende uddannelser at Akademikernes h ringssvar vedr. nyt bevillingssystem for de videreg ende uddannelser – Akademikerne

uptake, and award HE institutions with decreasing student uptake. The model also disincentive universities wanting to change the offering to more (more cost intensive) technical/scientific degrees.

The use of penalties (and not corresponding incentives), in the result indicators. Especially the employment indicator is seen as a penalty (as opposed to an incentive), as its effect is only felt 2 years after study completion. Besides being seen as a penalty, the indicator is also seen as a source of income insecurity, at odds with the intent to drive quality¹¹⁸.

Reporting complexity and uncertainty. The reform has implied more reporting overall (taximeter reporting, reporting on new indicators and reporting on the strategic framework contracts). Moreover, there is uncertainty as regards the final reporting on the strategic management plans, how the reporting and assessment will be judged. It is understood that the intent of the Strategic framework contracts is to ensure that HEIs perform to its best ability ('a commitment of effort') and not an obligation to achieve a firm result. As such the intention to judge the results of the contracts generously, not to hand out financial penalties¹¹⁹. However, how this judgement in practice will take place and how this may impact on final funding is not yet known (accepting that up to 10% of the base grant is performance dependent). There is also some concern about using user surveys to assess quality (under the base funding envelope).

Some HEI interviewees, moreover, note that the result indicators (time for completion and employment), in themselves only to a limited degree guide performance, as these are focus areas for universities anyhow. The taximeter grant also focuses attention on competition (as grants are associated with student activity and not student enrolment, encouraging universities to get students through the system). Therefore, even if the objectives are seen as relevant, the use of results-based indicators is not necessarily those perceived as generating solely the desired results.

The recent political agreement, *More and better educational opportunities throughout Denmark* of June 2021, is among HEIs, consistently not seen to support optimally education and research. The focus of the 2021 agreement is on delocalisation and educational access, which is seen at odds with aims of educational efficiency. The top up taximeter, for education outside the major educational cities and doubling of the basic subsidy for decentralised education offers, are seen as insufficient to cover real costs of decentralisation.

As the agreement also involves a requirement to relocate certain HE degrees, as well as a 10% cut in the maximum number of student places in the main university cities over a decade¹²⁰, the model is seen to force relocation driving up (unfinanced) overhead costs, decreasing resources for education.

Further challenges from this agreement is associated with reporting, with HEI required to report not only on student FTEs, but also the location in which these FTEs have been generated. Employers and students have also questioned the rationale of study relocation, and the cut in the maximum number of student places in the main university cities.¹²¹

118 Danske Universiteter, Notat om taximetersystemet, 2014

119 Jongbloed, B. & H. de Boer (2020), Performance Agreements in Denmark, Ontario and the Netherlands. Enschede: CHEPS. Available here.

120 See Bred politisk aftale om bedre muligheder for uddannelse i hele Danmark <https://ufm.dk/aktuelt/pressemeddelelser/2021/bred-politisk-aftale-om-bedre-muligheder-for-uddannelse-i-hele-danmark>

121 See for example Ritzau, Begrænsning af videregående uddannelser er en realitet and Studerende: Udflytning af uddannelser er et hasardspil

The extent to which the previous 2013 reform (the Progress Reform) operated as intended is debated. The reform (covering both HEI funding and cuts in student grants to avoid excess time) met significant opposition among students, staff and HEI¹²² and the number of students dropouts increased by 20% in the years following the reform.¹²³ Reflecting the strong opposition, parts of the reform was delayed one year, and adjustments were made in 2015. However, there is also evidence that study time spent, and the age of graduates fell significantly in the years following the reform¹²⁴.

Research grants

On the positive side there is evidence that the current performance indicators – especially the bibliometrics and external grant funding – does impact on HEI planning and objective setting, and in some cases also funding allocations between departments and/or review (at HEI and department levels and in some cases even at the levels of researchers)¹²⁵. The extent to which the bibliometrics indicator has increased actual publication or the extent to which it has implied reallocation of funds, however, is more questionable – with the effects being, at best small¹²⁶.

The indicator covering research activities funded by external funds is also assessed by HEIs as a relevant indicator, and its use coincide with large increases in external funding of HEIs. There is also evidence that the targets set for PhD students are close to being met – with the number of Ph.D. degrees close to doubling between 2006 and 2016 (after which number have stabilised¹²⁷).

However, judging from the interview feedback and available documentation¹²⁸ there are challenges with the current base grants for research. These include:

- **HEIs external funding of research binds the basic research funds.** A core intent of the basic funds for research is to support the quality and outcome of basic research. In practice however, large shares of the basic funds are used as co-funding for externally funded research projects. The amount of external funding of the HEIs total income has increased considerably. In 2007, these funds represented about 19% of total HEI income. In 2019, they represented about 31% and more than half of total research funding of HEIs¹²⁹. The large share of external research funds not only binds the free funds for co-funding. It also implies that private funding increasingly impacts prioritisation of funding areas. An associated challenge is the use of research resources which are involved in project applications.
- **Focus on number of publications, and less focus on the quality of the publications.** The current results-based funding rewards the number of publications. Its scientific impact and quality are only indirectly covered via the level division of publication channels. Use of other indicators, such as citations, are seen in some areas are more relevant for performance.
- **Recruitment and retention of research talent is not awarded the in-performance criteria.** A challenge in this context is that half of the researchers at Danish

122 See for example Overblik: fremdriftsreformen fra vugge til mulig grav, Uniavisen, 2017 and Undervisere råber op: Fremdriftsreformen dræber de studerendes kreativitet, Information, 2017

123 See for example Siden fremdriftsreform: Markant flere dropper ud af universitetet, 2018 DenOffenlige.dk

124 See for example DEA, Unge er hurtigere igennem uddannelsessystemet, 2020

125 Uddannelses- og Forskningsministeriet, 2019 Fremtidssikring af forskningskvalitet Ekspertudvalget for resultatbaseret fordeling af basismidler til forskning

126 Ibid

127 Danske universiteter (2020) Tal om danske universiteter 2020 available here

128 Notably Uddannelses- og Forskningsministeriet, 2019 Fremtidssikring af forskningskvalitet Ekspertudvalget for resultatbaseret fordeling af basismidler til forskning

129 Danske universiteter (2020) Tal om danske universiteter 2020 available here

universities are recruited without actively publishing new posts, undermining the potential to attract top class researchers.

- **Enhanced competition in research**, with increased pressure for publication and matching of other performance criteria, requiring new approaches to research management.
- **“Double counting” of PhDs**. PhD production is largely linked to the attraction of external resources, as the external funds finance a large part of the PhD students. For this reason, there is an element of double counting in the performance formula.

Additional challenges mentioned by some interviewees relate to the unevenness of external funding opportunities across science areas. Large shares of public funds, and the largest national private funds are earmarked specific research areas, generating unevenness in funding access between specialised and broader universities and forcing HEIs to focus on areas where funding is available rather than on areas where institutions have high competence. Interviewees also note that external funding is often focused on close to market research, with fewer funding opportunities for basic research.

To address these challenges, different models for the allocation of the basic funds for research has been proposed by an expert group (see above) and are currently in discussion. These are:

- An adjusted version of the current indicator-based allocation system
- A performance-based model based on development contracts
- A results-based model based on peer review
- A results-based model combining development contracts and Indicators

A2.3.6 What are effects on inclusion, innovation of Teaching & Learning and on transnational collaborations?

Grant funding of HEIs in Denmark are seen to have some direct and indirect impacts on inclusion, teaching and transnational collaboration.

Inclusion

Inclusion, ensuring access to HE across Denmark, is a key objective of the 2021 Political agreement *More and better educational opportunities throughout Denmark*¹³⁰, which will adjust funding to meet this aim. Given the timeline, effects are still to play out. Some interviewees however, question if the reform will impact positively university access of more marginalized groups, arguing that in the case of Denmark, geographical location is not one of the main barriers to access university education.

Other aspects which are seen to impact accessibility is the “duration of study” indicator for education grants, which award HEIs for quick completion. Some interviewees note that the indicator penalises universities for students which have special needs, and which, for this reason may not be able to complete studies within the expected time. Students with special needs are also reported affected negatively by the student grant limitations in time. While dispensation from the general rules for student grants can be given there are additional administrative burden associated hereto¹³¹.

130 See 2021 Politisk aftale om rammerne for Flere og bedre uddannelsesmuligheder i hele Danmark at <https://ufm.dk/lovstof/politiske-aftaler/aftale-om-flere-og-bedre-uddannelsesmuligheder-i-hele-danmark/politisk-aftale-om-rammerne-for-flere-og-bedre-uddannelsesmuligheder-i-hele-danmark.pdf>

131 See for example information, Studerende med handicap må opgive studierne, 6. juli 2017

Internationalisation

The HEI funding system and its different components are not aimed at internationalisation objectives. None of the common performance indicators used in the funding models are linked to internationalisation. Also, internationalisation is not a mandatory criterion for the HEIs strategic framework contracts.

However, the funding models, and their set up, in practice, impact on, and is impacted by HEI internationalisation. Internationalisation objectives form a part of several of the strategic framework contracts. Several of the HEIs commit itself to promote the university internationally, working on its international branding and visibility and to develop an internationally recognizable and attractive recruitment and career-track system, as part of the strategic framework agreements. Three of eight universities have included internationalisation indicators as part the KPIs of the contract¹³².

Moreover, allocations of the Student Activity Based Grants are impacted by the flow of incoming and outgoing students. In addition to the regular ECTS-based allocation (taximeter grant) for its students, a grant is awarded funding for its number of exchange students (incoming and outgoing). Outgoing students generate only a small taximeter grant. Incoming students generate a taximeter grant (equivalent to Danish students).

To ensure that Denmark is not a net funder of education of non-national students, there is a political aim to ensure proportionality in student mobility (i.e., no more incoming than outgoing). Historically, the number of incoming students generating a taximeter grant¹³³ has been significantly higher than the number of outgoing students¹³⁴. Moreover, incoming students are more likely to be in science and technology areas – which generate a larger taximeter grant. Outgoing students tends to be in social science and humanity which generate a smaller taximeter grant. As balance is aimed for in budgetary terms, not in number of students, the nature of exchange has created further unbalance.

To match the aim of balance, increases in outgoing mobility is encouraged by the Ministry. In practice, however, to match the aim of balance, universities have had to review their exchange programmes and cut exchange agreements - to decrease the number of incoming students. The result has been that the number of incoming exchange students generating a taximeter grant has remained largely stable since 2013 (after a large drop in the 2011-2013 period), whereas the number of outgoing students has increased significantly (+39% between 2011 and 2019). Since 2014 outgoing students outnumber incoming students.

A separate aspect of internationalisation is that of international students on full degrees in Denmark. Benefits and cost of degrees offered in English, has been subject to several pieces of research and publications over the last years.¹³⁵ An issue of concern is the educational costs of European students, including especially the costs of Danish study grants to which European students are eligible. The number of English speaking HE students tripled from 2004 to 2016, and the share of international students of the student

132 The indicators included are: Proportion of outgoing exchange students (University of Copenhagen); Proportion of international researchers (Roskilde); and Proportion of international ph.d.-students, postdoc, assist professors and professors (Aalborg). 5 out of 8 universities do not have any internationalisation indicators (source: Strategiske Rammekontrakter can be found here).

133 Which represent +90% of incoming students, see Universiteternes Statistiske Beredskab

134 Universiteternes Statistiske Beredskab <https://dkuni.dk/tal-og-fakta/beredskab/>

135 See for example Justering af engelsksprogede uddannelser, 2018, Ministry of Education and Research and Regeringen efter ny SU-prognose: Indgreb nødvendigt for at begrænse SU-udgifter til EU-studerende, 2020, Ministry of Education and Research

body doubled (from 4% to 8%)¹³⁶. In many cases such students did not stay following the degree.

To address issues of rising costs of EU students benefiting from public study grants, there has been several agreements on reductions in HE studies places offered in English. Business academies and University Colleges cut the number of students on English educations with 28% of study places in English in 2017 (about 1,700 study places). Further reductions (ranging 1000-1200 study places) were planned in 2018¹³⁷ covering universities. New cuts were agreed in July 2021 as part of the political agreements covering degrees in English and delocalisation of HE¹³⁸. The agreement will limit the number of English-language education places by approx. 3,900 (across all HE), generating savings of about 127M EUR¹³⁹.

HEI representatives expect that the above changes will have a negative impact on the international environment at universities (including international researchers). Similarly, some interviewees note that the delocalisation of higher education (moving part of HE from the large university cities to smaller towns), is likely to weaken the international profile of Danish universities, noting that the ability to attract world class researchers will be diminished, if campuses are located in small towns.

Links between research funding and internationalisation, is less pronounced. However, the volume of externally obtained research projects – which include European and other international funding – impacts on public grants, as does research bibliometrics, which has driven attention to and focus on international publications.

Teaching

Impacts on teaching appear more indirect with overall HEI funding cuts and changing funding approaches supporting delocalisation being the main potentially impacting factors. Delocalisation is anticipated to generate higher overhead costs, which are not considered fully funded under the 2021 agreement. Additionally, the agreement on covering discontinuation of certain HE degrees in English, will, naturally impact on the HE offers in English but also student composition going forward. Delocalisation is also assumed to potentially impact educational quality, if delocalisation implies that ability to attract world class researchers is diminished.

A2.3.7 Data collection and performance monitoring

A2.3.7.1 Is there evidence to support the positive/negative effects touched upon in the previous question?

Funding of education

There is no evidence which may support an analysis or assessment of the positive and negative effects, of the current funding system as outlined in the previous sections.

The 2019 reform is too recent for analysis and assessment of implications and effects. Considerations regarding the potential implications of the strategic framework contracts

136 See for example Uddannelses- og Forskningsministeriet Justering af engelsksprogede uddannelser, 2018,

137 Ibid

138 See Uddannelses- og Forskningsministeriet Ny politisk aftale begrænser SU-udgifter til udenlandske studerende fra EU, 2021, Ministry of Education and Research, press release

139 Reduktion af engelsksprogede uddannelse betyder færre udgifter til udenlandske studerende, 2021 Folketinget

(including potential funding cuts which may result from the underperformance under these), is also premature given the uncertainty as regards final reporting and evaluation.

The pandemic further complicates any potential assessment, with indicators and baseline data being significantly affected. As a result of the pandemic, result based grants have been suspended¹⁴⁰. Moreover, because of the pandemic, an extraordinary COVID special grant was allocated to create 4,500 extra study places across HE (incl. outside universities)¹⁴¹. The pandemic also appears to have impacted on student activity, with quicker study completion (possibly reflecting discontinuation of student jobs during the pandemic). Consequently, changes in student offering, performance and impact of result indicators is not possible.

In contrast, as outlined above, there is evidence that study time spent, and the age of graduates fell significantly in the years following the 2013 Progress Reform¹⁴². As such the set objectives of this reform appear to have been well supported by the reform. However, as noted above both HEI funding and cuts in student grants to avoid excess time was covered by the reform. The reform also involved other aspects to motivate quick completion.

As regards the **research funding**, no comprehensive evaluation exists¹⁴³. However, there is quantitative evidence showcasing the increases in external funding of the HEIs, and its share in overall HEI funding, as well as qualitative and quantitative data underpinning the challenges listed above¹⁴⁴.

A2.3.8 How are the effects of the funding system (its impact on performance) monitored?

There is not a single system assessing the effects of the funding system, but rather multiple data sources which may inform assessment. Some evaluations, studies and other reports of the different reforms and funding systems, and more generally of the steering systems have been undertaken over the years, including notably:

- An evaluation of the taximeter system which took place in 2005¹⁴⁵.
- A University Evaluation undertaken in 2009, by an international expert group which was tasked to, review the University Act including the development contracts.¹⁴⁶
- A review of the basic funding for research by an international expert group, in 2018.¹⁴⁷

140 Uddrag fra styrelsens brev af 18 juni 2020 om udmøntningen af 'Aftale om flere uddannelsespladser på de videregående ud-dannelser i lyset af COVID-19 at <https://ufm.dk/uddannelse/videregaende-uddannelse/institutionstilskud/resultattilskud/uddrag-af-brev-11-06-2020-om-suspenderingen-af-resultattilskud.pdf>

141 Uddannelses- og Forskningsministeriet Enigt Folketing giver penge til 5.000 ekstra studiepladser, 2020 pressemeddelelse,

142 See for example DEA, Unge er hurtigere igennem uddannelsessystemet, 2020

143 Uddannelses- og Forskningsministeriet, 2019 Fremtidssikring af forskningskvalitet Ekspertudvalget for resultatbaseret fordeling af basismidler til forskning

144 Ibid.

145 EVA (2005) Rapport om taxametersystemet og uddannelseskvalitet

146 MSTI (Ministry of Science Technology and Innovation (2009), Danish University Evaluation 2009 – Evaluation report. The report is available here

147 Uddannelses- og Forskningsministeriet, 2019 Fremtidssikring af forskningskvalitet Ekspertudvalget for resultatbaseret fordeling af basismidler til forskning

- A review of completion time and age of graduates in 2020, in the view of the various reforms over the last decades aiming to decrease graduate age and time to completion.¹⁴⁸

A2.3.9 What data (which indicators) are collected? (What data is exchanged between HEIs and funding agencies?)

Given the differences in formula for the education and research related envelopes of the HE grant, separate indicators are used. There is an overlap however, in so far as the research formula also weighs in the education grants in its performance-based grants. It is also useful to distinguish between the data which is reported directly to the relevant ministry and the HE institutions annual reports.

For HE institutions (educational funding) the following common indicators are used

- Credits accumulated (ECTS) is by far the most important indicator (67.5% of total educational grant).
- Time to degree relates to the average time students take to receive their degree (as compared to the normative time to degree, plus 3 months).
- Graduate employment. The employment is measured in the period 12-23 months after graduation. If the proportion of the institution's graduates who have found work is 25% lower than the national average, the budget cut for the institution as part of its education budget is topped off. Funding represents in the range of 3.4% of total funds but may represent up to 5,56%

Credits accumulated, time to degree, and Graduate employment data are gathered and analysed by the Ministry (with universities providing inputs into the ministry's database).

Additional HE institution specific indicators are included in the Strategic Framework Contracts (and agreed between the Ministry and the institution). Data related to the Strategic Framework Contracts are provided by the institution itself on the basis of data sources agreed with the Ministry. The Danish Agency for Institutions and Educational Grants is handling the strategic framework contracts. The institutions have three reporting obligations – annually - during the contract period: to provide a status report, to update their action plan, and to provide an annual report¹⁴⁹.

The status report and action plan are sent to the Ministry as a separate document (in spring, followed by discussion during summer). This report is presumed to be approved by the university board. The status report indicates the extent to which an institution is on course to achieve its objectives. It should include a general assessment of the perspectives for goal achievement, including documentation on the performance on the indicators. The status review also contains a description of initiatives undertaken to support goal achievement, as well as an updated forward-looking action plan that shows the institution's basis for realising the goals. The annual report complements this data, providing both an overall judgement on performance, and repeats data from the status review.

148 DEA, 2020, Sabbatår og fremdrift på de videregående uddannelser, Notat

149 Vejledning om afrapportering af de strategiske rammekontrakter i den første statusredegørelse til ministeriet og årsrapport 2019 Available here.

Upon expiry of the contract, the institution reports on the final achievement of each of the strategic goals – building and drawing from the reporting done annually. This serves as an input for the assessment by the Danish Agency for Institutions and Education Grants¹⁵⁰.

In practice, annual reporting varies somewhat between institutions. There is a fair amount of performance reporting in the institutions' annual reports. Much of the quantitative data reporting focus on funding formula indicators. This includes

Education	Research
student full time equivalent (FTE) measured in total student completion (= 60 ECTS-point)	Research publications
Student completion	Patent applications
Number of paying students.	Number of projects with the private sector
PhDs	Number of external projects
Internationalisation: incoming and outgoing students	Economic value of collaboration with the private sector

Additional reporting varies. For example, Copenhagen Business school has in 2020 a section on internationalisation, covering¹⁵¹ – in addition to the above indicators - indicators such as:

- Number of programmes offered in English
- Number of partner universities
- Employment of international faculty members
- Student satisfaction
- Unemployment of new graduates
- Type of PhDs

Furthermore, some reports (e.g. the 2020 Copenhagen Business school) provides quantitative data on the performance of the indicators defined in the strategic framework contracts¹⁵². This, however, is not a systematic feature across annual reports. While all annual reports provide an overall judgement on performance and repeats data from the status review, this data tends to be more qualitative, providing also, to varied degrees quantitative information about general progress, measures undertaken, and select examples of data on the performance indicators.

Interviewees indicate that reporting on the strategic framework contracts is currently a “black box”. It is yet to be determined what is adequate reporting- and how this reporting will impact on the base funding provided.

For the research envelope, data is collected on research activities funded by external funds; research bibliometrics and number of completed PhDs (in addition to ETCS credits accumulated, which also are used by the research formula). These aspects are provided as part of the annual reports but also reported directly to the Ministry and/or to the national statistical office.

150 This agency is part of the Ministry of Higher Education and Science, and it was established 1 January 2017. It allocates and administrates grants and funding to institutions and has the main contact and dialogue with institutions regarding control of targets and results, inspection and administration

151 Annual report 2019, Copenhagen university, available here

152 Copenhagen Business School annual report 2020 here;

A2.3.10 Are there plans to revise the data collection to make it more useful for policy-makers and/or to reduce the administrative burden?

HE funding

No. Data collection related to the HE funding formula and research formula is seen of as an effort.

Interviewees also note that there is an increased reporting burden, and more data demands. Some interviewees also note issues with double reporting to the ministry and/or the national statistical office along with reporting the Danish institute for Higher Education¹⁵³. Some interviewees, however, note that large part of the information needs to be collected anyway.

As for reporting on the strategic framework contracts the first five years (which complete the duration of the first funded related performance contracts) is yet to be completed. As outlined reporting is seen currently as a “black box” – and the full potential burden of this form of reporting is not known.

The 2021 agreement on More and better educational opportunities throughout Denmark of June 2021, is expected to lead to increased reporting burden, with HE institutions required to report not only on student FTEs, but also the location in which these FTEs have been generated.

Research funding

In view of the current discussions of a reform of the indicators used for the base funding for research, a change in data collection for research base funding is likely to take place.

A2.3.11 Funding the EUI

A2.3.11.1 Does the national funding system support the goals of the European Universities Initiative (EUI) and is there a debate about changing (increasing) the national funding for supporting transnational collaborations?

Internationalisation in the HR sector is a national priority (although of decreasing importance under the current government, where other priorities, has gained ground – see above). In this context, government administration has been actively encouraging HE participation in EUI.

However, this priority does not translate into the funding model. This needs to be seen in a context of a funding model which explicitly is designed as a broad long term sustainable financing model, under which HE institutions can set its own priorities. As such, and in line with policies in other Nordic countries, earmarked funding is not provided to specific initiatives such as the EUI. The intent is that such initiatives can be funded under existing funds (incl. especially the base funding) reflecting HE institutions priorities. Aspects which also matters in this context, are:

153 Danmarks Akkrediteringsinstitution, <https://akkr.dk/>

- The Ministry's view that the EUI is, as an initiative, intended to support excellence and quality, focusing on the best HE institutions. It is not perceived as an initiative intended to transform the full HE sector. Providing funding to the EUI, would, in this perspective, distort HE funding as not all universities would naturally be beneficiaries.
- The novelty of the initiative – and the need to see how engaged Danish HE institutions would be in the initiative.

In support of the EUI, the Ministry has set up a working group with Danish HE institution to discuss participation. However, the EUI has not been linked to the national policy debate or tied to national goals. There is no any national data collection connected specifically to institutions participating in the EUI.

interviewees from EUI Alliances, highlight that there has been a wish from the universities to receive earmarked funding from the ministry. The aim of this request does not reflect a general demand for earmarked funds, but rather a need for additional funds to take up the additional tasks and activities which are associated with EUI participation – and this in reflection of the potentially wide-ranging consequences of the initiative.

HEI interviewees note that that there is a discrepancy between government intent and funding. While the ministry encourages Danish universities to take an active part in EUI, there is no dedicated funding to support ambitions. HE funding has been cut from 2016-2019, and potential cuts may be expected in the short/medium term. While HE funds can be allocated freely by the university, in practice there is no funds for proactive EUI participation. The implication is that Danish universities largely participate in the EUI with existing man-days.

The approach to EUI funding is unlikely to change at least in the short and medium term.

A2.3.12 Lessons and challenges

A2.3.12.1 What are the main lessons that can be drawn from the past when it comes to the functioning of the (PBF) funding system? What worked particularly well – or not so well?

Whether performance-based funding formulas, or performance agreements drives the performance of higher education is a question that cannot be answered based on this case study. Within this context, the following lessons can nevertheless be drawn:

- There is evidence that some objectives of funding reforms have been achieved. Quicker completion, a key objective of the 2013 reform (but also of other previous initiatives) has been attained. There is also evidence of increases in student numbers (receiving funding under both education and research grants), and increases in research activities funded by external funds, awarded under research performance indicators. However, such developments have been supported also by other important policy and legislative initiatives - such as the reform of student grants, targets for HE attainment and decreases in HEI public funding, and more widely internationalisation of HE. Attribution of impact is therefore considerably more challenging.
- Different funding modes – such as in the case of HEI educational funding in the case of Denmark – appear to have different strengths and weaknesses. Base funding provides financial stability but decreases HEI opportunities to adapt the educational offer to demand. Taximeter arrangements support efficiency and adapt revenues to activity. However, they are not seen as an instrument of strategical steering. The use of results indicators, helps strategical steering towards governmental priorities.

However, they create income unpredictability – which may have adverse consequences, encouraging HEIs to financial restraint (impacting negatively on the quality of the educational offer).

- If strategic plans are used their goals and KPIs must be driven by the HEI, reflecting their priorities. Governmental driven performance agreements and indicators, appear to fit badly with the institutions' strategies, and leading to lack of ownership. Indicators used in performance contracts must be selective and meaningful to the HEIs¹⁵⁴.
- The extent to which educational funding against specific indicators drive HEI prioritisation, is to some extent challenged. However, over and above the funding mechanism themselves, they play a role focusing attention on selected priorities – and as such impact behaviour.
- On the research grant side there is evidence that the current performance indicators – especially the bibliometrics and external grant funding – does impact on HEI planning and objective setting, and in some cases also funding allocations between departments and/or review (at HEI and department levels and in some cases even at the levels of researchers). However, as for the educational funding, it is not necessarily the funding envelope which drive change, but rather the focus that that is given to these specific areas which drive behaviour.
- There is growing concern that incentives under research base grants and in particular their focus on the number of publications as performance targets creates inappropriate derived incentives. In a general context of publishing and funding pressure – enhanced by performance funding – there is risk creating poor working environments, unethical research practices and breaches of research integrity.

A2.3.13 What are the perceptions of the key stakeholders on the main challenges?

The main challenges around educational funding are as reported above:

- Overall decreases in public HEI funding, considering the activity level. Funding for HE and been continuously reformed or adapted over the last decades. The overall trend, however, is that of decreasing public university funding, and increasing shares of income being funded by external sources. Interviewees note in this respect that while the generators of public revenue under the state grant have been changing, actual income is only modestly, accepting that accumulated funding pot, remaining stable or decreasing (unless student intake changes).
- A funding system with increased complexity and reporting requirements, leading to enhanced administrative burden – and this without increased funds.
- Funding insecurity – generated by both the use of result indicators (although currently put on hold) and by the strategic framework contracts
- Delocalisation of educational activities, without sufficient extra funding to match costs – with a risk of decreasing number of study places (due to the ceilings placed on study places in larger main university cities, and insufficient funds for delocalisation¹⁵⁵)

As recent reforms, including the 2021 Delocalisation Agreement and the agreements on the discontinuation of certain HE degrees in English are the results of broad political agreements, there is little evidence to suggest reform or adaptation in these areas are imminent.

¹⁵⁴ Ben Jongbloed & Harry de Boer (2020) *Performance Agreements in Denmark, Ontario and the Netherlands*. Report for the project Evaluation of development contracts in Norwegian higher education

¹⁵⁵ Danske universiteter, *Politisk aftale vil betyde, at færre får mulighed for at læse på universitetet, 2021*, presse meddelelse

The challenges related to research funding are listed above. Additionally, increased targeting of independent competitive public research funds in STEM areas and on selected societal priorities, leading to unevenness between total research funds available to different universities, is seen as a challenge – especially for smaller universities with wide academic coverage.

A2.3.14 What other policies and initiatives can be held responsible for the (non)-performance of the system? How do they work as incentives?

Various other policies and political initiatives influence HEI funding. Specific objectives of funding reforms, such as rapid student completion have been supported by past reforms of the Danish student grants, as well as previously, requirements related to exam enrolment. Targets associated with HE completion and expansion of student places impact on university activity and consequently funding. Other policies listed above aiming at delocalisation, balance in incoming and outgoing students and limitations on educational offers likewise impact on funding

Decreasing educational funding per student over the last decades set the context. By 2020, Denmark spent below OECD average on education by student¹⁵⁶. Decreasing funds for education has been a consistent concern over the last two decades¹⁵⁷. Most recently, so called “reprioritisation contribution” implied in the 2016-2019 period an annual cut of 2% on the taximeter grant per student. While the annual 2% decrease in funding of HE was discontinued 2020, there is currently uncertainty about the continuation (beyond 2022) of the so-called taximeter top-up (taxameterløftet) in place since 2009 for students in humanities and social sciences and designed to address underfunding in these areas.¹⁵⁸

Quality in HE is chiefly supported by the Danish accreditation system, which was set up in 2007¹⁵⁹. The system aims to strengthen the educational institutions' work to continuously develop education's professional quality and relevance. Accreditation covers new degrees (with review under the following headings: labour market relevance and needs, evidence base, learning objectives, organisation, and quality control and development), and accreditation of HE institutions, which review and assess HEIs systems for quality control and development and continuous assessment of HE relevance. The accreditation ensures that comprehensive policies are in place at HEI level to support quality development in education, monitoring and evaluation.

A2.3.15 Do stakeholders hold different opinions on the changes to be made to the funding system?

Opinions on the current HE education funding model differ across stakeholder groups. The current funding model (2017 model) the result of broad consensus between all Danish national political parties. The reforms in 2021, which impact on funding, are the result of broad political agreements.

156 Danske universiteter (2020) Tal om danske universiteter 2020 available here

157 See for example Evanthia Kalpazidou Schmidt et al. (2006) Funding Systems and Their Effects on Higher Education Systems Country Study – Denmark November 2006, OECD

158 Danske universiteter, Uvished om fortsættelsen af taxameterløftet fra 2023, September 2021

159 See Danmarks Akkrediteringsinstitution at <https://akkr.dk/>

There is, among stakeholders (HEIs but also employers), mixed views of the reforms, as illustrated above. The biggest criticism relates to the 2021 delocalisation reforms, its costs, but also the ceilings placed over the number of students in the larger university cities, which are consistently expressed among by HEIs and large employers. However, it is rather the potential impact of the reform on the costs of HE (not fully funded by the recent reforms), the educational quality of HE offers in small towns, the potential decrease in qualified graduates in Danish cities and/or the potential overall decrease in the number of graduates which are the key concerns – rather than design of the funding model itself.

As regards the research funding model currently in discussion, the Ministry's view is not known, and a common position of the Rector's College for Danish universities is not published. Some universities however, however, note a preference for a model which stays closest possible to status quo due to the potential administrative burden of other models. Similarly, some researchers, have argued that there is a need to consider management and administrative implications of the funding model, accepting that the potential allocation of funds is likely to regard only some 1 billion DKK (about 134 million EUR)¹⁶⁰.

160Poul Erik Mouritzen og Jørgen Søndergaard (n.d.) Hvordan kan kvaliteten af universitetsforskning fremmes gennem bevillingssystemet?

A2.4 Finland

A2.4.1 Does the performance-based funding system work in Finland

A2.4.1.1 Finland's higher education funding system in brief

The core funding for Finnish higher education institutions (HEIs) is formula-based. In 2021, 95% of the core funding for universities of applied sciences (UAS) and 76% for universities is allocated by output-based indicators. The two distinct funding models for universities and UAS are based on a computational formula with indicators and strategic funding. The sector-specific funding formulas follow the same logic of three pillars – education, research and strategic funding, but they differ in the weight and contents of the calculation criteria. For both sectors, the main criteria driving the core funding are degrees. Indicators for education have more weight in the UAS model (72% compared to 42% for universities), while research has more weight for universities (34% compared to 19% for UAS).

Outside the core funding, universities also acquire competitive research funding, e.g. from the Academy of Finland. This includes 100 million euros profiling funding which is allocated every second year based on universities' strategies that are peer reviewed and rated.

The third pillar for strategic funding covers institution-specific strategies and government program funding for common policy goals. Strategic performance agreements between the Ministry of Education and Culture (MoEC) and an individual HEI is connected to the formula funding since the degree ceilings are agreed in the performance / result negotiations, and no funding is allocated on top of the agreed number. Strategic agreements are performance-based because the failure to meet the strategic plans may lead to financial consequences for the HEI, with part of the funding not allocated after the midterm evaluation. For the Funding formulas for 2021-, see Annex.

Finland's HE funding system is the result of a long development trajectory. Performance / result agreements were introduced in 1990s in universities and in the newly established UAS. For universities, the funding formula has been in use for 20 years with periodic incremental adjustments; since 2013, it has been strongly results-oriented and output-based. For UAS the performance-based formula funding has been implemented since 2014. In 2017, the funding models were for the first time reformed simultaneously. The funding formulas were last adjusted in January 2021, to reduce the number of indicators, and to give more weight to completed degrees, lifelong learning, employment and research. Also, the third pillar for strategic funding was split into government program funding and funding based on institutional strategies.

A2.4.2 What are the positive (intended) and negative (unintended) effects of the system in terms of the three missions (education, research, engagement) of higher education institutions?

Finland's PBF formula shows a long-term positive impact on education and research¹⁶¹: In education, degree completion and study progress have improved, and the time-to-degree has been reduced, while student mobility and international enrolments have grown. PBF

161 Seuri & Vartiainen, 2018

has encouraged HEIs to improve their own T&L processes: they have removed their administrative barriers for students' study progress and completion and improved student-centredness through student guidance, preventive care and early interventions [interview with UAS and MoEC, October 2021].

In Universities, the overall research productivity has grown as manifested in the increase in publications, while the research quality and international research collaboration have also been enhanced [Interviews, October 2021]. However, survey-based evidence suggests that research performance among academics is driven by the acknowledgement from the academic community and academic achievement rather than measurement and financial incentives¹⁶². Universities' research indicators are seen as largely beneficial, however there are concerns that the system may have gone too far given that indicators of the funding allocation model linked to the JUFO Publication Forum¹⁶³ are also used as performance indicators for researchers in some universities¹⁶⁴ [Interview, October 2021]. UAS appreciate the R&D indicators, too: for every euro earned from R&D with firms, the UAS receives 90 cents from the state [Interview, October 2021].

In addition to the computational formula funding also the strategic performance agreements under the third pillar have also improved the quality of education and research as well as internationalisation (International collaboration) [Interview with MoEC, May 2021].

As for engagement, the lack of dedicated indicators may have led to the neglect and lack of esteem for engagement [interview, October 2021]. There has been an ambition by the MoEC to include engagement in the PBF model but no reliable indicators have been found [interview May 2021] and the appetite for such indicators is limited both in the MoEC, which is cautious not to increase the complexness of the model [Interview, Oct 2021], and among HEIs, where a large part of the core funding is already determined by indicators [interview, October 2021]. For both types of HEIs, engagement is delivered through education and research which are driven by indicators [interview MoEC and HEI representatives, October 2021]. In UAS, 'engagement' typically refers to regional development. For universities, the focus is on 'societal impact' which is achieved in different ways, e.g. through ecosystem development [Interviews, October, 2021].

The PBF model has also led to a range of unintended impacts. Research evidence shows that the indicator-based funding for publications within specific journals in the national performance-based funding model has incentivised Finnish academics to increasingly target international (English-language) publication outlets¹⁶⁵. The use of national languages in research publication has declined in social sciences and – to lesser extent – in humanities with the risk of reduced influence on evidence-based policies and public debate in Finland.¹⁶⁶

The evaluations of the previous reforms of the university act of 2010 and the UAS act of 2014-2015 suggest that the PBF model has transformed the roles of the HE staff, diverting them from research and education¹⁶⁷: the PBF-model has increased the administrative burden and workload of the staff who need to compete for external funding, which in turn has reduced their time and focus on research or teaching and supervision of students. Research evidence however shows that in universities academics hold a quite

162 Kivisto, Pekkola and Lyytinen, 2017

163 JUFO Publication Forum is a classification of publication channels created by the Finnish scientific community to support the quality assessment of academic research. <https://www.julkaisufoorumi.fi/en>

164 <https://www.julkaisufoorumi.fi/en>

165 Mathies, Kivistö and Birnbaum, 2019

166 Ibid.

167 MoEC 2018:33

positive view of performance measurement as such, although this does not correlate with perceived high performance in either teaching or research¹⁶⁸.

The HE system evaluation commissioned by the MoEC¹⁶⁹ and other studies have also identified the homogenisation in the HEIs' profiles driven by strong performance-based funding, and limited profiling due to the focus of activity around a minimum set of actions and the small share of funding for strategic development¹⁷⁰. A recent study further highlighted the replication of the national model in the internal funding allocation in some HEIs¹⁷¹.

Unintended consequences also relate to the competition among HEIs, driven by the zero-sum game / closed envelope system to the detriment of collaboration in education and research [interviews with MoEC and HE sector, October 2021]. There is a concern about the indicator-driven competition among HEIs through production of more degrees (and other outputs) with the result that the cost of the degree is continuously declining, and maintaining the quality is becoming harder. The pressures are felt particularly in the smaller HEIs and UAS in general: "The funding is allocated on the basis of three year averages so the HEIs are constantly looking at the rear window while competing with each other to the death."

A2.4.3 What are effects on inclusion, innovation of T&L and on transnational collaborations?

There is no robust knowledge whether the PBF system has had an effect on inclusion, innovation of T&L. No studies have been conducted on the relationship between these aspects and the core funding mechanisms. Transnational collaboration, particularly in terms of mobility, has increased in previous years.

The output-based PBF model lacks dedicated indicators for inclusion, innovation of T&L and currently also for transnational collaborations. In practice there is an indirect connection between the PBF model and both inclusion and innovation in T&L, given that the indicators have contributed to the development of a more holistic guidance, personalised learning paths and student centric approaches as well as digitalisation [interviews with HE sector representative, October 2021].

The previous funding models for 2017-2020 included indicators for international mobility and degrees by foreigners¹⁷², but these have been removed from the current 2021 formula, as mobility and degree-based indicators were seen as too narrow to capture the breadth and scope of internationalisation¹⁷³. The internationalisation of universities is, however, embedded in the indicators for competitive research funding, research collaboration and publications.

HEIs may address Inclusion, T&L innovation and internationalisation as part of the strategic third pillar, in their institutional strategies if they see them important for their strategic development. In the current funding cycle, as a novelty - where relevant - HEI-

168 Kivisto, Pekkola and Lyytinen, 2017

169 Melin et al., 2015

170 Melin et al., 2015

171 Kivistö, Pekkola and Kujala, 2021

172 2017 indicators for universities: Master's degrees completed by foreign nationals (1%), student mobility to and from Finland (2%) and international teaching and research personnel (2%). For UAS, student mobility (2%) and teacher and expert mobility (1%).

173 MoEC, 2018:35

specific indicators have been established in collaboration with the MoEC and will be monitored for the specific forms that the HEI considers important.

While the impacts of the new 2021 model are not yet known, it is worth noting that the **third pillar for strategic funding is now divided into institutional strategic funding as well as government program funding for common policy goals** which are closely linked with each of the three elements,:

- **First, regarding inclusion, 40 million euros was allocated for raising education and competence levels**, on the basis of institutional plans to increase student intake. In the closed envelope system, where no extra funding is brought to the system this means that when the students eventually graduate, the price of the degree for all HEIs will decline, on the basis of the indicator for completed degree [Interview with university sector, October 2021]. New indicators may be forthcoming for inclusion, given that the (first) national access plan for higher education foresees indicators to monitor and assess progress in inclusion as part of the performance-based management and external quality assurance of HEIs¹⁷⁴. The progress in this respect will be decided after the Parliamentary discussion on the Education Policy Report¹⁷⁵ which is linked to the Access Plan [Interview with MoEC, October 2021]. Interviews showed that new indicators has no support: inclusion should be driven in other ways [Interview UAS, October 2021].
- Second, regarding transnational collaboration, 40 million euros was allocated on the basis of the government's HE internationalization program, covering collaborative networks of the global program and inter-university Alliances or networks formed for programme implementation. This program supports transnational networks where Finnish HEIs are working collaboratively, as opposed to providing support for the participation of individual universities in international/transnational collaborations. (MoEC does not grant project funding for individual HEIs; this decision was made about ten years ago [Interview with MoEC, October 2021].
- Third, regarding innovation in teaching and learning, the government program funding has been allocated for the development of a shared digital platform for HEIs in line with the digital vision. Collaborative efforts in this domain are considered important by both HE sectors, but the interviews show that the PBF model is pushing HEIs to competition, rather than collaboration and division of labour: "There is the question is how the HEIs profile themselves, who is producing materials, who is getting the study credits." [Interview with UAS, October 2021]

A2.4.4 Data collection and performance monitoring

A2.4.4.1 Is there evidence to support the positive/negative effects touched upon in the previous question?

The positive/negative effects of the funding system have been studied by the MoEC that has initiated evaluations and research on the HE and research and innovation system. Examples include the evaluation of the reforms of the university and UAS legislation, the HE system evaluation commissioned by the MoEC (2015)¹⁷⁶, and the OECD review of

174 MoEC, 2021

175 <https://minedu.fi/en/education-policy-report>; see also Report Valtioneuvoston Koulutuspoliittinen selonteko, <http://urn.fi/URN:ISBN:978-952-383-622-8> (summary in English)

176 Melin et al. 2015

Finland's Innovation system (2017)¹⁷⁷. However, each of these evaluations and studies have had a broader scope than the funding system.

As noted above, the evaluations of the reviews of the reforms of the university and UAS acts have identified the changes in the role of HE staff to the detriment of the core tasks of teaching and research. The key criticism in the international studies and evaluations has focused on the negative impacts of the large proportion of the core funding allocated on the basis of PBF formula. The HE system evaluation warned against the narrowing impact of PBF indicators and leaving a small share of funding for strategic development or distinctive profiling (Melin et al., 2015). In the review of Finland's Innovation system, OECD recommended the reduction of the share of performance-based funding to reduce its negative impacts¹⁷⁸. In response to these evaluations, the MoEC has made adaptations to the funding formula, but has not embarked on a larger reform effort to alter the proportion of the funding determined by output-based indicators. In 2015, however, 100 million euros was detached from the funding formula to boost profiling of universities. This biennial competitive funding is allocated by the Academy of Finland on the basis of university- specific research strategies which are reviewed and ranked by an international peer review team.

A2.4.4.2 How are the effects of the funding system (its impact on performance) monitored?

The effects of the funding system and its impact on performance are monitored by the MoEC in conjunction with the annual funding decisions. Within the four-year funding agreements, the funding for HEIs is allocated annually on the basis of the indicators which take into account three-year averages. In addition occasional evaluations have looked at the effects, but these have not been regularly implemented given the successive changes in the model [Interview with MoEC, October 2021].

At the beginning of the four-year contract period, the HEIs and the MoEC hold performance / result negotiations to agree on the common goals of the HEI, key institution-specific measures, the institution's mission, profile, strengths and new emerging areas, degree goals and allocations. The result agreement also defines the reporting on the achievement of objectives. During the contract period, the MoEC conducts mentoring visits to each university, accompanied by a mid-term review of the contract period, to provide institution-specific feedback. HEIs report about their institutional strategy development, its implementation and profiling as well as national education and research policy goals. For 2021, HEIs were asked to update their strategies up to 2024 and (2030 for broader goals) covering common and institution-specific goals, which provided input to the government program. For the first time the MoEC also asked HEIs to suggest their own indicators which were then agreed with the MoEC, and adapted where necessary.

HEIs provide relevant information to VIPUNEN, the central reporting portal and the information service for HEIs, which in addition to detailed statistical data, also provides information on the positioning of HEIs within the university / UAS sector¹⁷⁹. All the indicators for funding are publicly available on VIPUNEN. Based on this reporting, the MoEC monitors the economic situation and performance of the HEIs.

177 OECD, 2017

178 This is in stark contrast to the usual OECD recommendation which generally argue for an increase of PBF in HE funding models.

179 <https://vipunen.fi/en-gb/>

A2.4.4.3 What data (which indicators) are collected? (What data is exchanged between HEIs and funding agencies?)

Large amount of quantitative data of exchanged, not only for the purposes of the PBF, which is publicly available in the VIPUNEN system.

Quantitative data is derived from the HEIs' joint data warehouse VIRTa and from Statistics Finland. Data is collected from multiple sources. There is direct data collection by the MoEC from the HEIs, data derived from the joint data warehouse of HEIs (VIRTa) and data from Statistics Finland.

The MoEC collects information from UAS and universities on their operations, personnel and financial activities. The reports utilise data collected from the VIRTa study information service and the VIRTa publication information service. These services provide uniform and up-to-date comparative information on Finnish HE and scientific publishing activities. The VIRTa service contains information on the study rights in HEIs, degrees, study credits and their assessments, semester registrations and international mobility periods. The data collected in the VIRTa service can be utilized in various systems and services, which helps to reduce the administrative burden on users and providers of data¹⁸⁰.

For result agreements following indicators are collected for Universities: agreed targets on MSc by field of education and BSc and PhD on university level; and for UAS: BSc targets by the field of education and MSc on UAS level target.

A2.4.4.4 Are there plans to revise the data collection to make it more useful for policy-makers and/or to reduce the administrative burden?

There are currently no plans to revise the data collection system. The MoEC and the HEIs agree that the administrative burden and the transaction costs of the output-based formula funding are limited thanks to the sophisticated data collection mechanisms. The data collection is automated and the HEIs' data goes to a data warehouse Virta. The data that is collected is information that the HEIs need and collect for their own purposes.

The performance/strategic negotiations are more labour intensive and may employ several staff per HEI: negotiations are carried out every four years and involve mid-term evaluations to verify the progress towards the goals. The information related to the agreements consists primarily of qualitative information prepared by the HEIs. There is no fixed format or a list of indicators for this information.

A2.4.5 Funding the EU

A2.4.5.1 Does the national funding system support the goals of the European Universities Initiative (EUI)?

The goals of the European university Alliances are well aligned with Finland's national goals for HE that focus on improving the quality of education and research [Interview with MoEC, May 2021]: The European Alliances focus on innovations in teaching and learning that contribute to these goals, as they encourage internationalisation and social inclusion

180 The information stored in the VIRTa service can be browsed freely in Tiedejatutkimus.fi and JUULI.

which are also part of the current government program. Finnish HEIs are well represented in transnational collaboration (e.g. EUI) which provides a good platform for the development of quality in HE and research.

Despite this, the Finnish HEIs in the Alliances do not receive funding (or co-funding) from the national government. A one-off public funding support was allocated to each of the four HEIs involved in the first wave European University Alliances, worth 150 000 euros per institution. The targeted support was granted because at the time of the launch and selection of the Alliances, the national HE funding system was under revision and there were no other means to support the Finnish members [interview with MoEC, May 2021]. The HEIs in the second wave have received no targeted funding, as the “new funding model enables institutions to use the strategic part of their block funding for this purpose” [interview with MoEC, May 2021]. The MoEC sees this as a better guarantee for stable funding than earmarking funding or other ways.

A2.4.5.2 Is there a debate on changing (increasing) the national funding for supporting transnational collaborations between HEIs? (or on changing the criteria for that support? (e.g. conditions, flexibility, time period)

Finland allocates strategic funding through performance agreements which is added to the block funding of individual HEIs and can be used as they see fit. For the current program period (from January 2021) part of strategic funding for common goals was allocated under the government’s HE program to fund participating in transnational networks where Finnish HEIs are collaborating with each other. The European University Alliances were not part of this exercise as they represent collaboration where there is only one Finnish HEI per Alliance, in contrast to MoEC wish to encourage collaborative efforts of Finnish HEIs in transnational networks in strategically important non-European countries. As noted above, MoEC does not allocate project funding for individual universities [Interview with MoEC, October 2021].

The interviews in May 2021 and October 2021 showed that the MoEC has no plans to target strategic funding based on individual projects, programs or collaborations. The argument is that the previous experience of targeting funding to individual projects or programs had resulted in an influx of projects applications, which in turn led the MoEC to adopt a system where two-thirds of strategic funding is allocated on the basis of institutional strategies and their implementation, and institutions can allocate this funding as they wish into their strength areas.

The Finnish EUI partners agree that dedicated national funding should be guaranteed. With the growing number of HEIs involved in EUI, the demand for targeted funding is growing [Interview with university sector, October 2021]. The situation is seen as particularly challenging if/when member institutions within the same Alliance are receiving varying levels of national funding [Interview with a Finnish member university, May 2021]: leaving the funding support at the discretion of individual institutions has also led to uneven results, with zero funding allocated at least by one university [interview with HEI: May 2021]. HEIs are free to use the block funding as they wish.

As noted above, the MoEC has not allocated project funding for individual HEIs for the past ten years and hence does not allocate project funding to support international collaboration of individual HEIs [Interview with MoEC, October 2021]. The general feeling (among the Finnish EUI partners) appears to be that the 40 million euros allocated for transnational networking would have been better spent on European University Alliances [Interview, October 2021].

A2.4.6 Effects and challenges

A2.4.6.1 What are the main lessons that can be drawn from the past when it comes to the functioning of the (PBF) funding system? What worked particularly well – or not so well?

Core public funding is allocated in a transparent and fair way to HEIs and the funding is sufficiently stable and predictable. The output-based PBF model allocates public funding for HEIs based on results. It uses a transparent model with reliable indicators and enables all HEIs to calculate and verify the results and forecast future allocations.

The output-based PBF model has been developed in a steady and coherent way to become more performance-based. Development has been done in collaboration with the HE sector. The education and research outputs of HEIs are fully recognised in the funding mechanisms.

The output-based PBF model and its basic principles have been developed in collaboration with the HE sector to ensure the ownership of institutions. For instance the development of the current models was done in broad collaboration with HEIs, students, HE staff, external stakeholders e.g. technology industry etc.

The output-based PBF model has proved to be an easy and effective steering mechanism for the MoEC to drive the HE and research policy objectives. The model has enhanced HEIs' financial management and monitoring. Funding models have become more central to the MoEC steering of the HE sector.

The output-based PBF model generates the results that it is aiming at. PBF funding has incentivized institutions to increase their efficiency in graduate production and research productivity. HEIs output and productivity have improved. The number of degrees and research outputs have grown, also when inputs are taken into consideration¹⁸¹.

The output-based PBF model ensures the autonomy for HEIs. It allocates about 1.8 MRD euros for universities in a lump sum according to output indicators but the universities are free to use it how they wish. The MoEC cannot interfere with the internal business of the HEIs or dictate what they are doing; and they cannot close down institutions.

A2.4.6.2 What are the perceptions of the key stakeholders on the main challenges?

The output-based PBF model is based on a zero-sum game and a closed-envelope competitive system within the sub-sector - any changes in the system will result in winners and losers among the HEIs as long as no extra budget is made available. A HEI can increase its core funding based on a certain indicator by improving its performance more than others, but it is the development of all the indicators and their weights which determines the total funding. Not surprisingly the automated indicator-

181 Vartiainen et al. 2018.

based PBF-funding model is also perceived as manifestation of new public management and efficiency thinking which forces HEIs into a pointless rat race. If all HEIs improve their degree outputs, the result is that they will all get less funding per degree. **The zero-sum game drives competition between HEIs while collaboration between HEIs remains limited** as it is in their interest to focus on improving their own results.

In practice many institutions are (partly) replicating the funding allocation model in their internal resource allocation to the detriment of distinct profiles and institution-specific strategies. Some HEIs are affected by the 'Indicator blindness', and are implementing tactical approaches and sub-optimisation; "The PBF system is homogenising universities, and their strategies are increasingly similar." This has led to the impression that "the real HE leadership lies in the MoEC". [Interview with researcher, October 2021]. These thoughts are partly shared by the HEI management: The feeling is that the current model "does not encourage universities to make changes and reforms, to start new fields of study or close down old ones. Dynamic development is evident mainly within the existing field" [Interview with University management, October 2021]. The pressures are particularly evident in the UAS sector: "We are constantly monitoring to indicators. Each UAS needs to stay in the growth path, because if it goes down, it will be hard to climb back." The MoEC and also HE academic leadership (in some universities) do not necessarily support these ideas as they consider that the PBF model provides the best results when a HEIs are led in a strategic and consistent manner [interviews with MoEC and University sector, October 2021]. The MoEC also refers to the research evidence which shows a wide variation among HEIs to what extent they are replicating the national funding allocation in their own institutions¹⁸². **If however the national funding model is used in the internal funding allocation, there is a risk the performance-based funding steers the work of individual academics and HE staff.** Interviews confirmed that Finland is probably one of the few countries in Europe where individual professors / academics know how public funding is allocated to institutions and what are the indicators. This has led to the situation where some universities / faculties are using the PBF indicators, for instance for publication in the JUFO-classified journals in the performance management of individual academics, which is not the intention of the model.

The HE core funding has no fixed part, but large fluctuations are avoided on institutional level in the number of outputs through the use of 3-year averages for indicators in the formula funding. Nonetheless, the stability of system is a challenge for smaller institutions, as the vast proportion of core funding is tied to the outputs within a system which is overwhelmingly funded by public resources. Changes in a single dimension may affect particularly hard on smaller HEIs.

The PBF system has an inbuilt bias for bigger players. The model has a different impact on big and small institutions. Sufficiently big multidisciplinary universities have different types of faculties which even out the effects of the funding model. For smaller institutions the combination of specific disciplinary fields may have an impact on the level of performance-based funding, given that some fields are more, some less expensive. To even out the impact of different disciplines, the new PBF model includes discipline-based cost factors but the way these have been determined is not solid because calculating them in reliable way is challenging [Interview with university, October 2021]. For instance, the 2021 PBF model introduced discipline-based cost factors for degrees which caused problems for single-field HEIs¹⁸³. The model includes breaks i.e. it does not allow big reductions of funding; in these cases the MoEC has supported the institutions with bridging funding, but there is no certainty what will happen after the interim period [Interview with Researcher, October 2021].

182 Kivistö, Pekkola & Kujala, 2021

183 For instance, HUMAK and DIAK in the UAS sector.

In the university sector, the impact of the in-built bias for big institutions can be illustrated in the following examples, which however do not take into account the presence of 'breaks' mentioned above:

if one of the two biggest universities¹⁸⁴ improve their results over others, there is an immediate impact on smaller actors. If the biggest university improves its result every year by 0.5%, in 5 years it will gain 2.5 percentage points equivalent of 42 million euros on top of its budget of 400 million euros.

If at the same time, the medium-sized universities maintain their share or improve a little, much of the 42 million euros would be taken away from the small universities. The two smallest universities, each with an average annual budget of 40 million euros, cannot afford to lose 5 million euros. The total of 10 million euros that would go to the biggest university would account only for a quarter of the funding that it would get on the basis of the model.

If the 400 ME annual budget of the biggest university increased by 5%, the budget of universities would decline by 20 million euros. In contrast, if a small university's budget of 40% increases by 5%, the biggest university would barely notice any change.

There is a long-standing critique regarding the strategic funding under the third pillar.

The funding for institutional strategies under the third pillar of the funding model is limited and the transparency of the allocation of this funding has been a source of concern for a longer time¹⁸⁵. In the most recent allocation round, the MoEC has aimed at improving the transparency by undertaking joint sector-specific negotiations, but eventually the strategic negotiations are carried out bilaterally between the institution and the MoEC. [Interview with MoEC, October 2021]

In the current model, criticism has targeted the method of allocating the government program funding for common policy goals (under third pillar strategic funding) (see 1.3). The allocation of strategic funding for transnational collaboration (40 million euros) through collaborative projects, based on a list of topics predetermined by the MoEC is perceived by some as "resource intensive and unlikely to lead to concrete results or real collaboration among HEIs" and for some "a de facto reduction of the institutional autonomy to devise HEI-specific strategies"¹⁸⁶, given that "in addition to the calculated PBF system which allocates a vast part of the core funding, the strategic part of the core funding now includes projects predetermined by the MoEC." [interview with university representative, October 2021]. Depending on the specific situation of the institution, more nuanced responses were also given: It was seen as natural that the government wants to steer the HEIs strategically – although the funding allocation process could have been improved (The lengthy strategizing process progressed through stages that included collaborative workshops etc.): "What matters in the bigger picture that the share of this funding is small compared to the formula-based funding which is allocated as block funding and can be used as the HEI wishes" [Interview with university academic leadership, October 2021].

The PBF model is developing the HEI operations at a slow pace. For instance, the PBF model lacks the element to address the need to increase the number of new study places. Government program funding of 40 million euros was allocated under the third 'strategic' pillar for this purpose, but the results of this investment will be shown later when

184 Helsinki University and Aalto University represent half of the university system in Finland

185 MoEC 2018:33

186 The allocation system involved a three-stage process of projects calls with focus on the predetermined list from the MoEC, selection by each HEI of 4-5 projects from the predetermined list to lead or participate in specific networks or projects.

the students graduate. (Furthermore, the addition of this funding will disrupt the funding system given that in the zero-sum game it will eventually reduce the price of a degree.) [Interview with university academic leadership, October 2021] There is also an argument that the PBF fosters conservatism among HEIs and does not sufficiently support new openings [Interview with HEI management, October 2021].

A2.4.6.3 What other policies and initiatives can be held responsible for the (non)-performance of the system? How do they work as incentives?

The universities that can generate returns on their investment capital have better buffers against changes in the core funding and have also more room for manoeuvre beyond the focus on the indicators.¹⁸⁷ In general, the income from investments is strategically used for instance for important new openings. The government has supported the development of investment capital by matched funding schemes combined to voluntary giving by stakeholders.

The profiling funding (Profi-rahoitus) by the Academy of Finland enables universities to develop their distinct profiles and research strengths. This funding incentive was launched in 2015 by detaching 100 million euros from the universities' funding frame. It is allocated based on universities' research strategies that are peer reviewed and rated. While small in size and relatively labour intensive, the funding has enabled universities to build on their distinct strengths and focus on strategic development, as noted in the 2018 evaluation.¹⁸⁸

For UAS sector the profiling of individual institutions is increasingly based on R&D strengths which are directly linked to the focus areas driven by the respective Regions and their strategic plans. UAS are also integrating teaching and R&D: 70% of teachers are involved in R&D [Interview October, 2021].

Some universities may also have the national responsibility to provide training in specific fields which is not (sufficiently) taken into consideration in funding allocation.

European funding schemes for research are driving research performance, international collaboration and excellence.

A2.4.6.4 Do stakeholders hold different opinions on the changes to be made to the funding system?

According to the MoEC (interview, May 2021) HEIs are predominantly satisfied with the model and the basic principles, mainly because the funding models are not developed by the MoEC alone, but in collaboration with the HE sector. There is no major debate of legitimacy of the basic funding mechanisms or the changes into them, probably because the funding model is regarded as "a fair, transparent and sufficiently stable way to allocate funding which are the basic requirements for any type of funding allocation in the Finnish context." [Interview with university representative, October 2021]. Where disagreements exist, they relate to the individual indicators and weights of the model. For instance HEI

¹⁸⁷ This applies particularly to Helsinki, Aalto and Tampere universities, and the two Swedish language universities: Hanken and Abo akademi.

¹⁸⁸ The evaluation by Gaia Consulting Oy in 2018 covered all 14 universities under the MoEC. <https://valtioneuvosto.fi/-/1410845/profilointirahoitus-tukenut-yliopistojen-strategista-suunnittelua-ja-johtamista>

management have generally seen the reforms of the funding model and the performance-based models as a welcome development.

There is a disagreement whether the model is too complex or not. HEIs agree that the PBF formula enables HEIs to calculate how much funding they will get when plans for new indicators are announced. The interview with researcher stressed that over the years “the overall complexity of the model has not increased”. The MoEC would however prefer a leaner formula, but it needs to balance between the different stakeholders who are driving their own interests and lobbying for the inclusion of specific indicators into the model. Some HEI leaders objects to inclusion of any new indicators.

While the basic design and principles of the performance-based funding system have been generally accepted by the two HE sectors, there are concerns linked to the large share of core funding allocated on the basis of output indicators. The overall weight of the PBF in the allocation of the core funding is contested for instance by the Finnish Union of University Professors and the Union of University Teachers and Researchers who have proposed the inclusion of a fixed base on a set of selected stable indicators, combined with performance-based funding to create a more stable and predictable basis for the block funding. The MoEC is sceptical whether this would change the results since the formula funding is already using three-year averages that reduce the possibility of sudden changes in the funding [Interview with MoEC, October 2021]. It was also pointed out that the three-year averages do not guarantee stability for small universities in the zero-sum game [Interview with Researcher, October 2021].

There are concerns over quality under competition among HEIs which is driven by quantitative indicators. The MoEC has continuously geared the funding system towards more performance-based funding, but increasing the effectiveness by ‘adding more gas to the system’ does not improve quality [Interview with Researcher, October 2021]. The MoEC agrees that there is a need to focus on issues of collaboration and has launched a program for the sustainable growth of HE and research which examines – among other things — the impacts of responsibility for education and training (including HEIs needs to ensure that students graduate from their own institution) [Interview with MoEC, October 2021]. At the same time the MoEC stresses that HEIs are completely free to agree on collaboration and division of labour but have not shown much initiative in this respect.

While the PBF model – in principle – ensures the autonomy for universities as it allocates funding in lump sums to institutions and allows institutions to use it as they wish, there is an impression that the leeway for individual HEIs has narrowed down. Part of the reason seems to be that the importance of strategic planning and performance agreements between the HEIs and the MoEC has declined due to the output-based PBF model system. HEIs generally focus on getting as much public funding as possible through the indicator-based system. While the third pillar of strategic funding allocates funding for national and institutional goals, the HEIs/UAS do not want to grow the share of the strategic funding, given that the vast part of this funding is now aligned with the government programs, leaving limited room for manoeuvre [interviews with UAS & university representative, October 2021]. For others the large share of formula-based funding is actually a guarantee for institutional autonomy as this funding is allocated as a block grant and it is up to the institution how it uses it [Interview with university representative, October 2021].

The volume of HE funding in general is seen as too low. For the overall funding of 1.7 – 1.8 MRD euros per year which equals a third of the return on invested capital of Harvard University, Finland maintains the entire university system with good quantitative outputs [Interview with Researcher, October 2021]. In real terms, the volume of total funding assigned through the PBF system has not significantly changed over the past ten years for the universities, however the UAS funding has declined from the 2013 level: between 2012-2018 the UAS lost a fifth of their funding and their funding has still not reached the

2013 level: UAS have made significant improvements in degree production which determines 56% of UAS core funding, but in the closed envelope system this has not improved their funding situation. The MoEC does not contest the claim that the funding levels are insufficient, but potential extra funding is in the hands of government and the parliament [Interview with MoEC, October 2021].

A2.4.7 REFERENCES

- Finnish Union of University Professors and Finnish Union of University Teachers and Researchers (2019). Kohti vakautta, vapautta ja vastuuta - Ehdotus yliopistojen rahoitusmalliksi. [Towards stability, freedom and responsibility – Proposal for the funding model of universities].
https://www.professoriliitto.fi/@Bin/c613a25be86e24a9a3938073b66332c2/1620387988/application/pdf/1263400/Yliopistojen_rahoytusmalli_webversio%20.pdf
- Kivistö J., Pekkola E. & Kujala E. (2021). Selvitys yliopistojen sisäisistä rahoitusmalleista. Osa 1: Yliopistojen sisäiset rahoitusmallit. 21.4.2021. Professoriliitto. [(A report on internal funding models for universities. Part 1: Internal funding models for universities. Professors' union)].
<https://www.professoriliitto.fi/@Bin/1da183d61597c08f40dd1450a25f89bb/1620397172/application/pdf/1365266/Yliopistojen%20sisä%CC%88iset%20rahoytusmallit%202021.pdf>
- Mathies, C., Kivistö, J. & Birnbaum, M. (2020) Following the money? Performance-based funding and the changing publication patterns of Finnish academics. *High Educ* 79, 21–37 (2020). <https://link.springer.com/article/10.1007/s10734-019-00394-4>;
<https://doi.org/10.1007/s10734-019-00394-4>
- Melin, G. et al. (2015). Towards a future proof system for higher education and research in Finland. Reports of the Ministry of Education and Culture, Finland 2015:11.
<http://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/75119/okm11.pdf?sequence=1&isAllowed=y>.
- MoEC (2018). Korkeakoulu-uudistusten vaikutusten arviointi Opetus- ja kulttuuriministeriön julkaisuja 2018:33. [Evaluation of the impacts of higher education reforms. MoEC 2018: 33].
<https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/161051/okm33.pdf?%20sequence=4>
- MoEC (2018). Luovuutta, dynamiikkaa ja toimintamahdollisuuksia. Ehdotus ammattikorkeakoulujen ja yliopistojen rahoitusmalleiksi vuodesta 2021 alkaen. Opetus- ja kulttuuriministeriön julkaisuja 2018:35. [Creativity, dynamics and operational opportunities. Proposal for the funding models for universities of applied science and universities. MoEC 2018:35].
https://minedu.fi/documents/1410845/4177242/181024_OKM_rahoytusraportti_web.pdf/44cd4514-8627-1ba7-029f-4ab712f40763/181024_OKM_rahoytusraportti_web.pdf
- MoEC (2021). Kohti saavutettavampaa korkeakoulutusta ja korkeakoulua [Towards more accessible higher education and higher education institution]. Edited by Tapio Kosunen.
<http://urn.fi/URN:ISBN:978-952-263-838-0>
- OECD (2017). OECD Reviews of Innovation Policy: Finland. OECD Publications. Paris.
<https://www.oecd.org/finland/oecd-reviews-of-innovation-policy-finland-2017-9789264276369-en.htm>
- Seuri A. & Vartiainen H., (2018). Yliopistojen rahoitus, kannustimet ja rakennekehitys. Talouspolitiikan arviointineuvoston taustaraportti. Tammikuu 2018. [University funding, incentives and structural development. Background report of the Economic Policy Review Council. January 2018.] https://www.talouspolitiikanarviointineuvosto.fi/wordpress/wp-content/uploads/2018/01/Seuri_Vartiainen_2018-1.pdf

A2.4.8 Appendix - Finland's three-pillar core funding models (2021-)

A2.4.8.1 Universities

The education pillar accounts for 42% of the core funding, consisting of Bachelor's and Master's degrees (30% of the total funding; 11% and 19% accordingly), with coefficients for graduation times, multiple similar degrees, and discipline fields of education. Funding is provided up to the target, defined in the performance agreement negotiations. Other indicators in the education component have lower weights: 'Continuous learning' (5%) (incl. 1% for ECTS based on co-operation), 'The number of employed graduates and the quality of employment' (based on graduate tracking) (4%), and 'student feedback' (3%).

Third of the block funding (34%) is based on the research pillar, consisting of scientific publications (14%), competitive research funding (incl. international competitive funding) (12%), and PhD degrees (8%).

Nearly a quarter of block funding (24%) is distributed on the basis of 'Other education and science policy considerations' which is based on negotiations, covering government program funding and institutional strategies.

A2.4.8.2 Universities of Applied Sciences

The education component accounts for over two-thirds of funding (76%), covering mainly bachelor's degrees (56%), but also continuous learning (9%, including 1% for ECTS based on cooperation), and the number of employed graduates and the quality of employment (6%). The remaining 5% is calculated on the basis of student feedback (3%), and degrees in vocational teacher training (2%).

The second component for R&D accounts for 19% of the UAS block funding, comprising external R&D funding (11%), Master's degrees (6%), and publications, public artistic and design activities, audio-visual material and ICT software (2%).

The third component 'Other education and R&D policy considerations' accounts for 5% of the core funding covering government program funding and institutional strategies based on performance negotiations.

A2.4.8.3 Links to funding models

https://minedu.fi/documents/1410845/4392480/Universities_funding_2017.pdf/abc0974d-b8d5-4486-a12a-aa141d54b66f/Universities_funding_2017.pdf

https://minedu.fi/documents/1410845/4392480/UAS_funding_2017.pdf/070f8c08-ec18-4227-8436-d4e9f96037b9/UAS_funding_2017.pdf

https://minedu.fi/documents/1410845/4392480/UNI_core_funding_2021.pdf/a9a65de5-bd76-e4ff-ea94-9b318af2f1bc/UNI_core_funding_2021.pdf

https://minedu.fi/documents/1410845/4392480/UAS_core_funding_2021.pdf/1c765778-348f-da42-f0bb-63ec0945adf0/UAS_core_funding_2021.pdf

A2.5 Germany - Berlin

A2.5.1 Description of the funding system

A2.5.1.1 Introduction

As is widely known, Germany is a federal state. This is also reflected in the distribution of state responsibilities. For some areas of life, the federal level is responsible, for others it is the states – the Länder. In the area of education, the Länder have ultimate state sovereignty, which is also constitutionally guaranteed to them. This means that the Länder have a comprehensive degree of autonomy in education policy, because the federal level cannot intervene in the education policy of the Länder and cannot limit its formulation through a common framework. Instead, the education policy of the Länder is coordinated by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany, which is a voluntary association.

The sovereignty of the Länder in education policy also means that the Länder alone are responsible for financing their education system. The federal level can, also since the federalism reform in 2006, participate in the financing of higher education. This right of participation is regulated by the Basic Law in Article 91b. On the one hand, the federal government has the right to participate in matters of supra-regional importance and relating to the infrastructure for research and teaching. Secondly, this right of participation exists in matters in which the determination of the international performance of the German higher education system is central. A further prerequisite for the participation of the Federation is that all Länder have agreed to it.

Against this background, a wide variety of federal-state agreements have been concluded since 2006, in which the federal level participates in the financing. These include initiatives such as the Higher Education Pact 2020, the Excellence Initiative or, as one of the more recent agreements, the *Zukunftsvertrag Studium und Lehre*, which was adopted in 2019. In all of these agreements, the Federal Government and the Länder support the higher education institutions to the same extent with additional funding. For some HEIs, this additional funding can amount to a substantial percentage of their global budget (up to 10%), but due to the mostly competitive allocation of funds, this percentage varies between HEIs.

Germany has a binary system of higher education. The system consists of research universities and *Fachhochschulen* (Universities of Applied Sciences). The state of Berlin has a rich landscape of higher education institutions. These include two HEIs that are run by the church, 11 public HEIs, and 25 private and state authorized HEIs. In the following, we will describe the funding for the 11 public HEIs.

Public HEIs can be distinguished as universities, universities of applied sciences (*Fachhochschulen*), and HEIs that have a hybrid status, i.e. some parts function as universities, others as university of applied science (see *Berliner Hochschulgesetz*). In essence the Berlin HE system can be thus classified as a binary system. In more detail, there are four universities, and four universities of applied science. Three institutes of performing arts can be classified as hybrids. In terms of universities, there are the *Freie Universität Berlin*, the *Humboldt-Universität zu Berlin*, the *Technische Universität Berlin* and the *Charité - Universitätsmedizin Berlin*. The Charité has special regulations and is not part of the Berlin higher education law (the *Berliner Hochschulschulgesetz*).

A2.5.1.2 How is the funding system structured? (The shares of formula funding, performance agreements and other funding approaches)

Core funding is provided by means of Performance agreements (*Zielvereinbarung*) accompanied by a funding formula. The agreements are concluded between the state of Berlin (that is: the Berlin Senate administration responsible for higher education) and the HEIs. The agreements are currently being concluded for five years. The contracts require the approval of the House of Representatives. The current contract covers the period 2018-2022.¹⁸⁹ To improve the transparency of the system, the universities and the Senate department responsible for science form a joint working group that accompanies the implementation and monitors the effects.

The performance contracts are results-oriented, i.e. the contract partners agree on quantitative targets that need to be achieved at the end of the funding period. The performance budget is oriented towards these targets and aims to support their achievement. In case targets are not achieved, the budget can be reduced in the next funding period. HEIs can reduce the budget cut if they exceed the agreed performance for other indicators from the same mission area. The parties involved in the contract negotiations are the institutional leadership of the HEI and the responsible representatives of the Berlin Senate. Most of the negotiations are held in plenary settings, i.e. all HEIs are represented. There are also bilateral negotiations or rounds on selected topics.

In Berlin, PBF (the *Leistungsbasierte Hochschulfinanzierung*) consists of indicator-independent base funding and a formula-based part that is driven by a number of indicators. The base fund (the *Sockelbetrag*) on average amounts to about 45% of the total core budget for all HEIs in Berlin. For the universities, the share is about 34%; for the Fachhochschulen it is 26% on average. The share for the art institutions is to be raised to 50%. The base funding covers all costs that are not related to the HEI's performance, such as maintenance or specific facilities.

In the performance-based part, there are three groups of indicators linked to targets in education, research and diversity (*Gleichstellung*):

- The Education targets refer to the following indicators:
- The number of students in standard study period.
- The number of completed degrees, weighted by type of degree
- Completed degrees in teacher education

For the 'students' indicator, the rates per student differ for disciplinary clusters and type of higher education institution. The weighting of the number of completed degrees considers the efforts spent on supervision.

- Research indicators are the following:
- Third party funding
- Third party funding from DFG (*Deutsche Forschungsgemeinschaft* – the federal Research Funding Council) and EU funds (on top of the previous indicator)
- The number of fellowships and prizes from the *Alexander von Humboldt-Foundation* (AvH Stiftung)
- The number of ERC Grants, AvH professors and Leibniz prizes
- The number of collaborative PhDs (completed in collaborations between universities and Fachhochschulen located in Berlin)
- (only for UAS) The number of publications

¹⁸⁹See: <https://www.berlin.de/sen/wissenschaft/politik/hochschulvertraege/hochschulvertrag-2018-2022-01-fu-inkl-anlagen.pdf>

- (only for UAS) The number of regional cooperations

The first research indicator implies that for each €1000 the HEI receives €500 of core funds. For DFG and EU third party funding, the HEI receives €100 in addition.

- The diversity indicators include:
- The number of newly appointed female full professors in disciplinary areas where the percentage of female full professors is below 50%
- The number of female full professors in areas where percentage of female full professors is below 50%
- The number of all other types of female professors in areas where their percentage is below 50%
- The number of students within the standard period of study with higher education entrance qualification for Vocationally qualified (without Abitur)
- The number of students within the standard period of study in programmes that have vocationally-qualified entrance conditions
- The number of male students within the standard period of study in primary school teacher training programmes and in the study programme “Childhood Education”
- The number of labour market-related part-time BA degree programmes (online, distance learning, evening study)

The funding contract foresees predefined amounts for each indicator unit. The tariffs are determined during the negotiations of the performance contracts. For example, in Education, for each student the HEI receives a certain amount to fund the costs of educating the students. However, the tariffs are not supposed to reflect the true cost of education- they are a kind of quasi price. In the negotiations, the HEIs estimate the total budget needed for the task related to the indicator, and the maximum value it would like to achieve in this task. For example, the HEI estimates a maximum number of students in the standard study period and the budget needed to host them. From these figures, the final tariff per student is calculated, taking disciplinary characteristics into account. Most of the negotiations on the contract are held in plenary settings, i.e. all HEIs are represented. There are also bilateral negotiations or rounds on selected topics.

The share of core funding driven directly by performance criteria is about 45-55% according to representatives of the Berlin senate. This estimate considers the funding provided to the HEIs provided by the State of Berlin. Funding from other sources, in particular the funding from the federal level (which is about 10% of the HEIs’ direct public funds), is not considered in this share. The degree of performance orientation has decreased in the past decade from approximately 66% in the past to its current share of about 50% according to the responsible representatives of the Berlin Senate. It was felt that the base funding provided in former periods hardly covered the costs to guarantee the functioning of the HEIs. Below we will return to the issue of the share of performance-dependence.

A2.5.1.3 What are the key goals of the funding system?

The rationale of the funding authorities for using a funding contract/agreement is to provide funding security to the HEIs; giving them financial planning security. The maximum budget agreed in the funding agreement is guaranteed for the full five year period.

At the same time, the performance contracts are built on the principle “money follows the student.” The focus is still on incentivising the institutions, although the share of base (i.e.

non-PBF) funding has been increased in the recent period. The incentive mostly comes from the malus-system, which can cause a reduction of the performance related budget.

The funding system aims to avoid too large shocks by defining upper limits for the performance: if HEIs exceed the performance targets they do not receive additional funding unless the extra performance is in the education mission. So far, most HEIs receive the agreed maximum amount. There are no financial consequences if the HEI do not achieve the qualitative targets. Instead, they need to analyse why the agreement was not achieved and to adapt their plan in a realistic way.

HEIs are very much trying to avoid budget cuts, suggesting that the model works largely as a punishment tool and not as a rewarding tool.

It is the available state budget and its yearly increase (currently: 3,5% per year) that drives the HEI's budget.

Another principle of the agreements is to provide autonomy to the HEIs to make their own decisions. This is supported by means of giving them lump sum budgets (*Globalhaushalt*).

A2.5.1.4 What is/was the motivation/ rationale for the current (PBF) funding system? (issues it aims to address)

Individual contracts contain university-specific targets, but the basic structure and contents of the contracts are the same for all HEIs – the contracts are 90% similar.¹⁹⁰

In 2018-2022, the contents of the contract are covered in the following sections:¹⁹¹

- Providing financial resources
- Capacities and structural development
- Studyability and access
- Teacher training
- Employment conditions
- Research, promotion of young researchers
- Strengthening the universities of applied sciences
- Equal opportunities
- Internationalisation
- Cooperation with the economy
- Digitalisation
- Efficient administration

All in all, the contract's length is about 45 pages.

The rationale for each of the state goals is mentioned in the performance agreements.

The rationale for the system is to strike a balance between the state-level goals and the HEI's individual goals – with individual HEIs trying to build their own particular profile. The recent evaluation of the funding system (see below), however, feels that the system-level goals receive most of the attention in the contracts. In addition, there are multiple state-level goals giving the impression that there is a great deal of detailed steering at the state level.

The performance-based funding formula makes use of uniform indicators that are mentioned in the annex to the performance agreement of each HEI in Berlin. The

190 Evaluation der Hochschulverträge in Berlin, 2021

191 Evaluation der Hochschulverträge in Berlin, 2021

agreement also includes institution-specific texts on the more qualitative goals. However, the texts that deal with institution's ambitions are relatively short.

A2.5.1.5 Did any major reforms/ changes take place in recent years?

The current funding mechanism been in place since the late 1990s. Berlin was one of the first states that used performance agreements. Nowadays, all states in Germany have such agreements. Currently, the funding period for the agreements in Berlin is five years; before 2018 it was a four year period.

The percentage of the base funding has been increased as it turned out that the percentage of base funding was too small to secure the operations of the HEIs.

Until 2011, the performance-based funding model was more like a zero sum game, where the performance of HEIs was compared between institutions and the ones performing less undergoing a budget cut. The current model only assesses a HEI's performance against its own individual targets, and HEIs are assessed against their own past performances, making the PBF model less competitive and more focused on collaboration with other HEIs in the state.

In 2020/2021 the financing of HEIs in Berlin was evaluated by an expert commission. The report of this *Kommission der Gutacher und Gutachterinnen* came out in May 2021.¹⁹² The commission consisted of experts from the higher education field. Its report was widely accepted and, as a result, the Berlin Senate decided that the funding system will be fundamentally revised to take the evaluation commission's recommendations into account. Among other things, the indicator-independent amount (the fixed base funding) is to be increased and the number of indicators in the PBF part will be reduced. This will reduce the complexity of the funding formula.

The commission recommended to increase the share of the non-performance related base funding to 70%. It is not yet clear whether this will be implemented fully, but a rise is foreseen.

A2.5.2 Does the (PBF) funding system work?

A2.5.2.1 What are the positive (intended) and negative (unintended) effects of the system in terms of the three missions (education, research, engagement) of higher education institutions?

Representatives of the Senate and the HEIs have different opinions on the question of whether the performance agreements work.

Positive effects

In terms of positive effects, the Senate respondent we interviewed stated that, due to the complexity of the higher education system, it is difficult to establish simple causal relationships. Nevertheless, the state government feels that the incentives set by the

192 See: Evaluation der Hochschulverträge in Berlin. Gutachten 04.05.2021. Available online at https://www.lkrp-berlin.de/_media/gutachten-hs-v.pdf

funding system to achieve the goals are having an effect. In any case, this applies to topics that can be directly influenced by the respective central university management and university administrations.

The greatest effects can be seen in the area of teaching. Since the system was introduced, universities have been demonstrably taking on more students and trying to fully utilize their study places. In the past, they often left university places vacant and preferred to train fewer students. In teacher education in particular, it can be seen that the introduction of indicators in this area has led to universities stepping up their efforts to achieve the set target numbers for graduates and actually accepting more students into teacher training courses than they did before the introduction of this indicator.

This does not apply to artistic subjects, in which the admission of students depends on aptitude tests carried out by professors. The latter do not take into account the system-level funding arrangements and so far have not realized the wished-for increase in the number of enrolments.

On the other hand, at universities where students are enrolled exclusively centrally, i.e. independently of the teaching staff of the faculties, the state is observing a strong effect of the funding system and the desired increase in the number of enrolments.

In the areas of research and gender equality, there are also increases in the performance of the universities, but there is no direct effect of the funding system on the actions of individual universities in this respect. There is no evidence that, for example, in the case of a specific appointment, the appointment committee decides in favour of a woman in order to increase the global budget of the university, or that someone writes an application for third-party funding in order to increase the amount of the state budget provided to the university.

In any case, the system has the effect that the topics covered by indicators are attracting more attention from the respective internal university management, corresponding monitoring systems have been introduced and a corresponding cultural change has taken place at the universities. Berlin universities have the highest proportion of women in professorships in Germany.

Transparency on the goals that HEI pursue for all, including the broader public is seen as a positive property of the funding system.¹⁹³

Another positive element is the financial planning stability, because:¹⁹⁴

- Contracts last several years
- The annual increase of 3.5% is perceived to be high compared to other German states (for 2018-2022)
- At least 45% consists of fixed base funding
- The budget reduction due to non-achievement of goals is capped at 3%
- If not, all budget is distributed in first round after the evaluation of the performance, the second round looks at over-achievements on some targets and the entire budget eventually will flow to higher education.

Negative effects

According to the commission that evaluated the performance agreements¹⁹⁵, the agreements have become increasingly detailed over time. Whereas the length of a contract in 1997-2000 was 13 pages, in the current iteration it is 34 pages that include a

193 Evaluation der Hochschulverträge in Berlin, 2021

194 Evaluation der Hochschulverträge in Berlin, 2021

195 Evaluation der Hochschulverträge in Berlin, 2021

large number of goals. This has negatively impacted the autonomy of the HEIs and – also according to our respondent from the university, led to a large degree of detailed (micro) steering. This also negatively affected profile building by individual HEIs, according to the evaluation commission. There is a risk of homogenisation with agreements that are 90% similar.

New goals and tasks for HEIs are not linked to additional funds – and a higher level of control is hard to afford for small institutions without compromising teaching or research.

The evaluation commission points at the tendency for HEIs to admit more students (in excess of capacity) and this may come at the expense of quality. This tactical behaviour is meant to secure funding in the next budget round. Overachievement is an issue, as it sets the bar higher for the next round of contracts.

The representative of the Berlin university that was interviewed mentioned that HEIs cannot always steer the indicators included in the performance agreement. This implies a financial risk for them. For instance, the number of female professors is very difficult to control, because recruiting professors is very much tied to disciplinary domains and whether there are sufficient numbers of candidates coming forward. The same is the case for the number of degrees, including degrees in teacher training programs. The funding model as such can only have very little impact in these cases, according to the HEIs. Such political targets do not really have a motivating effect on HEIs, whereas maintaining a particular level of third party funding is much more in the sphere of control of HEIs.

A2.5.2.2 What are effects on inclusion, innovation of Teaching & Learning and on transnational collaborations?

The performance agreements pay a great deal of attention to equal opportunities –in terms of gender, ethnic background, age, disability, and nationality. They do so in a qualitative way. As part of the performance agreement, the state government provides specific amounts of funding for improving access and inclusion. The HEIs are expected to report on these issues. However, whether the funding model actually has contributed to more inclusion. More innovations, or more transnational collaborations between HEIs is difficult to assess.

A2.5.3 Data collection and performance monitoring

A2.5.3.1 Is there evidence to support the positive/negative effects touched upon in the previous question?

HEIs have to regularly report on the progress in terms of education, research, inclusion and other issues in the so-called *Leistungsberichte* (performance reports), that they have to submit to the state government. There are several such reporting instances and, generally, the accountability obligations are seen as quite heavy - with little feedback. Yearly, HEIs have to report on how many students have been admitted to their institutions and the teacher training programmes in particular. There is a joint working group overseeing teacher training issues; it regularly meets with the state Senate to evaluate progress and discuss capacity issues.

There is also a platform to discuss other policy issues in higher education – for instance on employment conditions. Diversity issues are discussed in a special conference

organized in the fourth contract year. On issues of knowledge transfer and engagement, a mid-term evaluation is carried out to decide prolongation of the funds tied to these objectives.

A2.5.3.2 How are the effects of the funding system (its impact on performance) monitored?

Most indicators can be concluded from the statistical data that the HEIs have to collect according to the law on higher education statistics (*Hochschulstatistik Gesetz*). HEIs have to report annually on their achievements/performances. These numbers are also used for the annual budgets.

The HEIs have to briefly report to what extent they have achieved qualitative goals as agreed in the Performance contracts.

There is a working group (*Arbeitsgruppe*) consisting of representatives of the HEIs' leadership and the Senate that regularly discusses challenges for the higher education system and the measures to be taken.

A2.5.3.3 What data (which indicators) are collected? (What data is exchanged between HEIs and funding agencies?)

Yearly data submissions are produced by the HEIs on the topics included in the funding formula, the HEI's expenditures, revenues, costs, results and other activities. In addition, there are two 20-page reports (*Leistungsberichte*) that HEIs have to submit to the state Senate about their progress in carrying out their performance agreement. The HEIs have to shortly report to what extent they have achieved qualitative goals as agreed in the Performance contracts.

Most indicators can be concluded from the statistical data that the HEIs have to collect according to the *Hochschulstatistik Gesetz*. HEIs have to report annually on their achievements/performances. These numbers are also used for the annual budgets.

A2.5.3.4 Are there plans to revise the data collection to make it more useful for policy-makers and/or to reduce the administrative burden?

There is no indication that data collection is to be changed. However, the reduction of administrative costs is a topic covered briefly in the performance agreements.

A2.5.4 Funding the EUI

A2.5.4.1 4.1 Does the national funding system support the goals of the European Universities Initiative (EUI)?

There is no funding for the European Universities Initiative at the State level, but the federal government does provide funding in an accompanying programme to the European initiative for higher education institutions that have successfully participated in

the Erasmus calls for proposals. These additional funds do not count towards the mandatory co-funding that Alliances have to provide.

The accompanying programme "European University Networks" was launched after the start of the European Universities Initiative. One reason for establishing the additional national funding was the relatively low monetary support provided to higher education institutions through the Erasmus programme. Even though the federal level is not allowed to set educational policy goals, the funds are intended to contribute to further strengthening and institutionalising European cooperation at the level of higher education institutions. One interviewee stated in this regard that it is important at the national level to give all students in Germany the opportunity to attend the best higher education institutions and to take advantage of the best educational opportunities for themselves while being internationally mobile. This orientation should also further the Europeanisation of higher education.

Specifically, the funds aim to support higher education institutions that have successfully participated in the EU pilot calls for proposals for the "European Higher Education Initiative" in establishing cooperation and thus also to support the positioning of the higher education institutions in European follow-up calls for proposals. The programme comprises two funding guidelines:

- 'Topping-up' - Here, German higher education institutions that receive funding through the European Higher Education Initiative receive additional financial resources that they can use for objectives related to participation in the higher education network. In both rounds of calls for proposals, up to €750,000 were made available here over the project duration for the German higher education institution for eligible costs.¹⁹⁶
- 'Approved-but-not-funded' - This programme line provides financial support to HEIs whose proposal was evaluated as good but did not receive funding. Here, in both tender rounds, up to €450,000 were made available for the entire project duration for each such German HEI for eligible costs.

In order to receive the funding, eligible higher education institutions must apply for the funding. The funding amounts listed above cannot be applied for as global amounts, but rather on the basis of a forward-looking calculation of the expected reimbursable costs.

For both funding lines, it must be noted that the funds will only support measures that are not already supported by European funds and that serve to achieve the objectives. According to the call for proposals, these include the following activities:

- Strategy/work meeting
- Workshops and seminars
- Summer/Winter Schools
- Conferences
- Language courses
- Public relations
- Publications
- Development of joint IT offerings
- Project monitoring (only programme line 2)
- Teaching / Lectureships
- Study and research visits by students, young academics and other academic university staff of up to three months' duration.

196

https://static.daad.de/media/daad_de/pdfs_nicht_barrierefrei/f%C3%B6rderrahmen_englische_version_final_webseite_2._runde.pdf

The allocation of funds is coordinated by the German Academic Exchange Service (DAAD). In addition, support measures for the European Higher Education Initiative can also be found for some individual Länder. Bavaria, for example, offers advice for higher education institutions, and North Rhine-Westphalia provided start-up funding of up to €10,000 for the second round of calls for proposals for the EUI, although the higher education institutions also had to provide their own funding share of 10% here.¹⁹⁷ In Baden-Württemberg, successful EU-funded higher education networks receive state funding in addition to federal funding, although the amount of financial support could not be determined.¹⁹⁸ Lower Saxony and Berlin do not provide any financial or advisory support for the HEIs.

A2.5.4.2 Is there a debate on changing (increasing) the national funding for supporting transnational collaborations between HEIs? (or on changing the criteria for that support? (e.g. w.r.t. conditions, flexibility, time period)

The Senate representative is not aware of any considerations to provide the universities with earmarked funds for the European University Alliances. It is of the opinion that universities have global budgets and sufficient funds to participate in the EUAs and the large universities are indeed doing so.

The universities themselves did not really call on the state government for extra funding. They feel that the transnational collaborations are interesting new ways of collaborating. The universities are prepared to participate in this initiative; they know how to engage in generating third party funding and international projects and are not regarding state funding as the most important issue in this initiative.

A2.5.5 Lessons and challenges

A2.5.5.1 What are the main lessons that can be drawn from the past when it comes to the functioning of the (PBF) funding system? What worked particularly well – or not so well?

In 2020/2021, the financing of HEIs in Berlin was evaluated by an expert commission. In general, the funding system is evaluated as operational. The funding stability that is guaranteed by the five year performance agreements is seen as a welcome property of the Berlin funding system. Also, the fact that since 2011 the model no longer compares HEIs against each other is seen as positive.

However, the recent evaluation did state the tendency of micro-steering/management by the state government and the lack of indicators for HEIs to allow institutions to set their

197

https://www.mkw.nrw/system/files/media/document/file/MKW_NRW_Foerderaufuf_2019_Europaeische_Hochschulen.pdf

198 <https://mwk.baden-wuerttemberg.de/de/forschung/internationales/europaeische-union/europaeische-hochschulallianzen/>

own targets.¹⁹⁹ This points at an imbalance between state steering and the institutions efforts to strengthen their own profile. A point of critique is that the funding model limits the autonomy of the institutions, in particular their freedom to build their own specific profile. The state-HEIs dialogue that would support this profile building is quite underdeveloped. HEIs could collectively agree on the way forward.

For the performance agreements, the evaluation commission suggests a move towards a collective part and an individual part, with the latter making use of elective profile indicators (*Wahlindikatoren*), to express ambitions on issues such as third mission, lifelong learning and knowledge transfer.

A2.5.5.2 What are the perceptions of the key stakeholders on the main challenges?

There are different points of view on some topics:

In general, the funding system is seen as operational. Main point of critique is that the funding model limits the autonomy of the institutions, in particular their freedom to build their own specific profile. The Ministry representative interviewed does not recognise that the funding system limits the HEI autonomy. However, an interviewed university representative and the evaluation commission did feel that autonomy has declined over time.

The university representative who was interviewed mentioned a high administrative burden, due to the detailed additional documents that have to be produced as attachments to the Performance contract. The state government representative, however, did not share this position.

The HEIs feel there are few incentives in place to encourage performance. The funding incentives are relatively weak. They state that the malus system is punitive – no rewarding effect. There are only extra resources in case HEIs exceed targets for the education indicators²⁰⁰: This may contribute the HEIs setting relatively 'safe targets', in order to prevent budget cuts.

The commission suggest for the future of the funding system to (among others):

- Simplify the funding formula – removing the prices
- Increase the share of the non-performance related funding to 70%
- Targets reflecting societal challenges should not be part of the performance contract, the targets should relate to the core tasks of HEIs
- Improvement of internal process should not be part of the performance funding.
- Implement a new line of funds for HEIs – an Innovation Fund that relates to the development strategy of the HEIs, allowing them to build a distinctive profile

The evaluation committee recommends implementing a third funding pillar, next to the fixed base funding pillar and the performance-based pillar. This third pillar should support future-oriented initiatives by HEIs.

The Senate representative states that, among other things, the indicator-independent amount is to be increased and the number of indicators reduced. To promote innovation, the state currently allocates funds to universities outside of the performance contracts, for

199 See: Kommission der Gutacher und Gutachterinnen: Evaluation der Hochschulverträge in Berlin. Gutachten 04.05.2021. Available online at https://www.lkrp-berlin.de/_media/gutachten-hs-v.pdf, checked on 3/6/2021, p. 8-9.

200 Evaluation der Hochschulverträge in Berlin, 2021

example through the quality and innovation offensive (QIO), a special program for the advancement of women, a state program for the promotion of application-oriented research and the Einstein Foundation. The funds earmarked by the state for innovations at universities are currently tied up in these programs - until 2024 and longer - and in any case cannot be transferred to an innovation budget for the universities in the short term. This will only be decided in due course.

The evaluation commission feels that a lot of these innovation funds are project funds; these are linked to short term programs.

A key issue is the volume of funds. The HEIs feel that the 3,5% rise in available core funds is too low for carrying out the tasks (including additional tasks) and to compensate the rise in material costs (e.g. energy prices and staffing costs).

A2.5.5.3 What other policies and initiatives can be held responsible for the (non)-performance of the system? How do they work as incentives?

The HEIs' performances in the area of research excellence and third party funding are not necessarily caused by the funding model – or the performance agreements. The HEIs are intrinsically motivated to perform in these areas.

A2.5.5.4 Do stakeholders hold different opinions on the changes to be made to the funding system?

No information was found on this topic.

A2.6 Italy

A2.6.1 Description of the funding system

A2.6.1.1 Introduction

The Italian Higher Education System (IHES) consists of 97 universities. Of these, 67 are state universities, including six special institutions and two universities for foreigners. Thirty are non-state universities, including 11 distance learning universities and one university for foreigners.

A2.6.1.2 How is the funding system structured? (The shares of formula funding, performance agreements, and other funding approaches)

Over the last few decades, governments have started to introduce performance-based principles and reward-based performance allocation mechanisms. These practices have impacted the main mechanisms used to allocate resources to (public) universities within IHES, such as the allocation of the state funding mechanism (FFO—*Fondo di Finanziamento Ordinario*), the budget for academic and administrative staff recruitment (PO—*Punti Organico*), and the extraordinary recruitment budget for fixed-term research fellows type B (*Piano straordinario di reclutamento*). The present case study refers only to the main funding system – FFO – investigating characteristics of performance-based principles that have been adopted in the last years by the Ministry²⁰¹.

For the current year, the FFO, which was launched in 1993 (Law no 537/1993), is composed of a basic share (about 60%), a reward share (about 30%) and other specific interventions. FFO can be considered as a mixture of historical, input and output-oriented allocation mechanisms. The basic share, which is the higher share of the FFO, is the sum of two elements: Historical funding and Student standard cost-share²⁰². Thus, it is mainly linked to dimensional parameters (the number of students, cost standards) and historical funding. Based on Ministerial Decree No 1059/2021, 28% of the basic share is determined considering Standard cost criteria, while about 50% is determined as a percentage of the basic share of the previous year (historical funding). The historical share also includes an equalization component (the so-called *Intervento perequativo*) for the previous year. Law 240/2010 established that since 2011 at least 1,5% of the total amount of FFO must be allocated to ‘under-funded institutions’ for guaranteeing equity among universities.

The reward share was introduced in 2008 (Decree-Law No 180/2008) to allocate funds associated with teaching and research performance. However, the criteria adopted are more oriented towards research than teaching quality. Indeed, the Ministerial Decree No 1059/2021 established that the total amount of the reward share is allocated as follows:

201 For further information about these mechanisms see: Alberto Ezza et al., “Performance-Based Funding in the Italian Higher Education: A Critical Analysis,” in *Digital Business Transformation*, ed. Rocco Agrifoglio et al., vol. 38, *Lecture Notes in Information Systems and Organisation* (Cham: Springer International Publishing, 2020), 155–70, https://doi.org/10.1007/978-3-030-47355-6_11; Nicoletta Fadda et al., “The Effect of Performance-Oriented Funding in Higher Education: Evidence from the Staff Recruitment Budget in Italian Higher Education,” *Higher Education*, May 27, 2021, <https://doi.org/10.1007/s10734-021-00725-4>.

202 It is worth noting that, from 2018, the FTE student definition considers both students who are attending courses no longer than the prescribed time and one year longer than the prescribed time.

- 60% considering the National Research Assessment-VQR (*Valutazione della Qualità della Ricerca*) 2011-14. VQR is a periodic evaluation that aims to retrospectively assess the quality of research performed at a given institution.
- 20% considering recruitment policies for the three years 2018-20 regarding 2011-14 VQR assessment. VQR is a measure of the effectiveness of research activity. It focuses on staff recruitments and assesses the attractiveness of universities in terms of recruitment of fellow researchers or professors from other Italian universities, from abroad or from those awarded with a research project financed by the European Union.
- 20% considering a three-year plan for the period 2021-23 (*Programmazione Triennale* or *Pro3*). Universities can choose indicators from a list provided by the Ministry (art. 3 Ministerial Decree No. 289/2021) related to five main dimensions divided into two groups. The first group is more teaching-oriented and includes 1) improving university access; 2) student service innovations and reducing inequalities among students; 3) internationalization. The second group is more research-oriented and includes: 1) valorisation of research at global level and civic outreach; 2) promoting recruitment policies for younger staff, also considering administrative staff. Universities are thus required to choose at least one dimension for each group and select at least two indicators for each dimension. This choice is aimed at improving the autonomy of institutions (*Responsible Autonomy - Valorizzazione dell'autonomia responsabile*).

A2.6.2 What are the key goals of the funding system?

The motivation for introducing performance measurement in the FFO and the resource allocation practices were to substitute the traditional input-based approach with output/outcome-oriented models. Doing this, resource allocations are not linked to historical budgets and inputs anymore, but to outputs/outcomes achieved. Universities are thus incentivised to improve their performances. Thus, the first fundamental goal is to reduce cost while fostering efficiency. Additionally, the goal is to enhance outputs/outcomes. This means improving teaching (such as study success, reducing student drop-out and reducing time to degree), research activities, and internationalisation. Indeed, a challenge of IHES, particularly compared to other European higher education systems, is the quality of research and the lack of networking/cooperation with other European institutions. These weaknesses were among the leading causes of the brain drain and the lower attractiveness of Italy in terms of international students and researchers.

A2.6.3 What is/was the motivation/ rationale for the current (PBF) funding system? (issues it aims to address).

The wide-ranging process of reforms was aimed at changing the management and governance of universities and improving their performance. Indeed, the traditional governance models were not suitable for managing the higher complexity, achieving cost-efficiency, and enhancing teaching, research, and internationalisation.

The process to overcome these difficulties can be split into two reforms: the first started with Law No. 168/89, aimed at increasing the autonomy of universities. In contrast, the second started with Law No. 240/2010, introducing performance measurement in the funding system and upgrading university management. Among the first wave of reforms, we mention:

- The introduction of FFO and the subsequent modification of the funding system that was aimed to give universities more budgetary autonomy (Law No. 547/93). It was followed by a first attempt to introduce a performance-based method to allocate part of the public funds²⁰³.
- Introduction of a two-tier degree system following the '*Bologna process agenda*'.
- The launch of university performance evaluations (Law No. 370/99).
- A second attempt at introducing a performance-based approach for allocating a part of the FFO (Law No. 1/09).

The second wave of reforms was thus aimed at changing governance structure and introducing a lump-sum approach with a stronger orientation towards performance, competition, equity among institutions, cost-effectiveness, and economic efficiency. Specifically, the equity goal was pursued with the establishment of the equalisation component, while the competition, cost-effectiveness and economic efficiency were encouraged by:

- The enhancement of the reward share. Since 2013 (Law No. 98/13), the FFO percentage determined using performance assessment has increased from 16% in 2014 to 20% in 2016. The same Decree also established an annual increase of at least 2% up to a maximum of 30% of the FFO since 2016.
- The clarification of the standard cost per regular student metric (Ministerial Decree No. 893/2014)²⁰⁴. Since 2014, the basic share percentage determined using standard cost metrics has increased from 20% in 2014 to 28% in 2016. For the three years 2018-20, the government established the FFO proportion based on the standard costs of 22% for 2018, 24% for 2019, and 26% for 2020 (Ministerial Decree No. 8/18).
- The introduction of the responsible autonomy principle, in favour of institutional autonomy (Ministerial Decree No. 635/16). The Ministry established that, since 2017, the FFO percentage determined using performance indicators – in terms of teaching, research quality and internationalisation – chosen autonomously by institutions was 20%. Additionally, the introduction of responsible autonomy was aimed at strengthening the international dimension of universities, both in the teaching and research dimensions. Indeed, the indicators that each university can choose autonomously are: the proportion of graduates from families with a low socioeconomic status that have carried out periods of study abroad; the participation in the 'European Universities' program; the number of courses taught in a foreign language (out of the total number of courses in the academic year); the proportion of PhD students that have carried out at least three months of study abroad; the ratio of visiting professors and researchers out of the total number of teachers.

Another important step, reflected directly in both the research performance and the evaluation of staff recruitment policies, was adopting the performance-based mechanism of the *Punto Organico* (PO) metric²⁰⁵. Firstly introduced in 2003 and later (Legislative

203 As stated by Capano, in 2003 the first attempt of introducing performance evaluation in the FFO allocation was dismantled because it was highly detrimental to at least two-thirds of the nation's universities, especially for those located in the Southern Italy due to their performance that tend to be lower than the average. See: Giliberto Capano, "Government continues to do its job. A comparative study of governance shifts in the higher education sector," *Public Administration* 89, no. 4 (December 2011): 1622–42.

204 The standard cost metric was introduced in 2010 by Law 240/2010. However, it was completed by the adoption of Ministerial Decree no. 893/2014, which specified the formula by which such a standard cost is determined.

205 The allocation of budgets for academic and administrative staff recruitment is a separate funding mechanism. The PO is equivalent to the average cost of a full professor. For example, in 2018, one PO equaled €113,774 and was used to parametrize the average cost of all the other academic or administrative positions (one associate professor equals 0.7 PO; one fixed-term research fellow varies from 0.4 to 0.5 PO;

Decree No. 49/12) used for allocating budgets for staff recruitment (both academic and administrative), PO allocation is a complex mechanism of allocation that considers the number and type of employees (academic and administrative staff) who left each university in the previous year and the financial efficiency of institutions, which is understood as the efficient use of resources with particular reference to human resource expenses and indebtedness. The rationale behind this approach is the same found in the FFO and linked to enhancing competitiveness with particular consideration of cost-effectiveness.

A2.6.4 Did any major reforms/ changes take place in recent years?

As stated above, the major restructuring of the university funding system started in 1993 and continued from 2010, based on the so-called *Legge Gelmini* (Law No. 240/10), which significantly also reshaped the governance of the IHES²⁰⁶. Over the period 2010-20, the weight of the historical funding has been reduced in favour of the funding formula²⁰⁷, based on the standard cost per student and the results of teaching and research activities. In addition, a period of significant budget cuts was triggered. Interventions directed at reducing disparities between institutions and enhancing institutional autonomy were also implemented.

one executive equals 0.65 PO, etc.) POs inform all the regulations regarding university recruitment, since all financial provisions are converted using this measure. The theoretical model implies that the total number of POs (the entire budget available for state universities' recruitment policies) allocated to Italian universities is defined with reference to the number and type of employees (both academic and administrative staff) who left each university the previous year. In other words, a parameter ('Turnover POs') is calculated with reference to each institution to weight staff reduction, and the recruitment budget is defined as the sum of the Turnover POs for each institution. However, the actual number of POs allocated at national level from 2012 to 2017 did not equal the theoretical values obtained as previously described. In fact, the definition of this metric dealt with the so-called turnover block, i.e. the limitations in recruitment for public administrations introduced to reduce public spending. Contrary to the other public sectors, the turnover blocks within the IHES were shifted from the single institution to the whole system. In fact, starting from the 2012, the actual number of POs allocated to Italian universities was defined as a share (from 20% in 2012 to 80% in 2017) of the theoretical value. Only in the 2018 was the total number of POs equal to the theoretical value. Finally, the recruitment budget is then shared through a formulaic method that uses the two following efficiency parameters, especially focused on personnel expenses:

1. A staff cost indicator that is calculated as the ratio of personnel expenses to total revenues, i.e. the sum of state funds and tuition fees net of loan repayments;
2. An economic and financial sustainability indicator that is the result of the ratio of total revenues after reducing rents payable to personnel expenses plus amortization charges.

²⁰⁶ About changes in the universities governance see: Giliberto Capano, Marino Regini, and Matteo Turri, *Changing Governance in Universities* (London: Palgrave Macmillan UK, 2016).

²⁰⁷ The historical share should be completely replaced by the standard cost by 2030.

A2.6.5 Does the (PBF) funding system work?

A2.6.5.1 What are the positive (intended) and negative (unintended) effects of the system in terms of the three missions (education, research, engagement) of higher education institutions?

Our interviewees (both from ANVUR²⁰⁸ and academia) stated that it is challenging to understand if the PBF works, because Italy is characterised by differences among geographical areas and regions. In addition, measuring whether the system has worked is tricky because the IHES are characterised by a period of public spending cuts, particularly for higher education institutions. This has limited the PBF potentialities.

All respondents agree that PBF works in establishing greater objectivity and clarity regarding criteria for assigning funds. The new funding system is gradually reducing the historical funding share in favour of a reward share based on performance and responsible spending. Thus, universities are more oriented towards specific parameters to which funds are linked. This meant, also, a higher level of competition in the system. However, due to the socioeconomic differences among geographical areas, for universities located in disadvantaged areas it has become more difficult to be competitive due to the fact that some actions are primarily influenced by external environmental factors instead of internal/managerial aspects. For example, linking a part of the funds (i.e. a basic share) to attractiveness (standard cost) is not seen as a positive aspect of the reform, because contextual factors play a crucial role in demand-driven mechanisms. In this sense, the academic professors we interviewed stated that ensuring fair competition between institutions in countries like Italy is unrealistic, due to the regional differences and historical inequalities. In these circumstances, policies aimed at promoting university attractiveness fail to produce sound effects for the whole system. Attractiveness sometimes cannot be linked to the quality of an institution²⁰⁹.

All respondents agree that from the research side, there are positive effects, particularly compared to other OECD countries²¹⁰. Interviewees stated that universities are more focused on research quality due to the higher weight of VQR in the reward share. This has led to reducing the gap with international universities. However, measuring research quality depends very much on bibliometric parameters. The latter led universities to focus their research on specific fields, sometimes even preferring fields that are less important for society, because these are more likely to be published in the journals that are considered in the research evaluations.

208 The Italian National Agency for the Evaluation of Universities and Research Institutes (ANVUR) oversees the national quality evaluation system for universities and research bodies. It is responsible for the quality assessment of the activities carried out by universities and research institutes, recipients of public funding. It is also entrusted with steering the Independent Evaluation Units' activities, and with assessing the effectiveness and efficiency of public funding or incentive programs for research and innovation activities. For more detailed information about ANVUR tasks see <https://www.anvur.it/en/agency/mission/>.

209 See for example Gianfranco Pischedda and Ludovico Marinò, "Children of a Lesser God? Demand-Driven Mechanism and the Potential Rise of Unequal Competition in IHES," Higher Education Policy, April 6, 2021.

210 In a recent study, Bratti et al. found that PBF is associated with an improvement in the average quality of research output, although they do not positively impact output quantity, which actually decreases, or excellent outputs. Cfr. Massimiliano Bratti et al., "The Effect of Research Evaluation Exercises on Research Output: Fifteen Years of Evidence from Italy," *Politica Economica*, no. 1 (2021): 13–42.

According to one of our respondents from academia, it is important to note that universities with limited budgets for recruitment policies are penalized due to the indicators related to the quality of recruitment and research.

From the internationalization viewpoint, there are several challenges. For example, creating and promoting international classrooms. A positive effect is the greater attention for the collection and transmission of information and the improvement of the recognition practices of credits acquired abroad.

A2.6.5.2 What are the effects on inclusion, innovation of Teaching & Learning and transnational collaborations?

One of our academic informants stated that double-degree programmes and other teaching partnerships (Erasmus/ Erasmus +) have increased in the last few years as a result of Performance-based funding (PBF). Teaching methods also have become more innovative thanks to the increased digitalisation due to the Covid-19 pandemic. Indeed, to increase attractiveness, both in-person and e-learning programmes are delivered. The reward share in the funding model goes beyond research quality aspects only, and it is now embracing the Third Mission and engagement role of universities. In this sense, innovation may be seen as an indirect effect of PBF.

Specifically, the ANVUR interviewee claimed that a key role is played by the *Programmazione Triennale* that varies between €55-65 million annually. The *Programmazione Triennale* gives a possibility to universities to invest in a wide range of initiatives based on development programmes for teaching, student service, research, internationalisation, et cetera. Thanks to this fund, some universities have made innovations, for example, activating services they may not have been able to activate before. However, this is not the case for all universities, because some universities are less strategically oriented, while others used the *Programmazione Triennale* to cover current costs (in particular, personnel). In this sense, the adverse effects are not linked to the PBF system, but due to the lack of strategic planning or a disconnect between strategy and performance. The plans of universities sometimes lack strategic orientation. An interviewee from academia stated that some university lack proper selection mechanisms to recruit staff (i.e., rector, dean of departments, general manager etc.).

On the issue of inclusion, a ministry representative stated that in 2017-18, the 'No Tax Area' was introduced for helping disadvantaged areas. In these areas, students with an ISEE (i.e., an indicator of their financial situation²¹¹) up to €13,000 do not have to pay taxes, while a partial exemption is for students with an ISEE between €13,001 and €30,000. Since the academic year 2020/21, the exemptions have been extended further, and they are defined annually by the Ministry. For example, in the academic year 2021/2022, the total exemption is applied up to ISEE equal to €22,000.

However, a precise analysis of the impact of these measures on the inclusion of students from disadvantaged socioeconomic backgrounds is not available. Nevertheless, it should be noted that the number of beneficiaries from the contribution has increased since the implementation of the No Tax Area.

211 The ISEE (= the indicator of equivalent economic situation) is a criterion to evaluate the family economic situation. It allows to take advantage of social benefits depending on the family economic situation. If a family has a low ISEE and has a child who wants to start a university path, the family (or the child) can be totally or partially excluded from paying university tuition fees.

A2.6.6 Data collection and performance monitoring

Is there evidence to support the positive/negative effects touched upon in the previous question?

The two professors we interviewed stated that some Italian researchers have studied the effects of the funding system and demonstrated that one of the adverse effects of the Basic Share part of the PBF system is the amplification of differences between universities of different geographical areas. This is partly due the working of the indicator that measures the annual recruitment power of universities (that is: the ratio between personnel expenses and its total FFO+ fees income; see above).

However, to understand the effects of funding policies one also needs to look at a broader spectrum of indicators to measure different aspects of universities. The consideration of multiple databases of universities and ANVUR is necessary, also to study the trends of each institution, comparing it to other institutions.

A2.6.6.1 How are the effects of the funding system (its impact on performance) monitored?

A2.6.6.2 What data (which indicators) are collected? (What data is exchanged between HEIs and funding agencies?)

Our interviewee from the Ministry stated that the ANVUR has made a wide range of indicators available for monitoring the results achieved. Leading indicators are related to:

- the accreditation process of universities and courses (SUA²¹² indicators);
- the FFO (standard cost, reward share, recruitment, MUR²¹³);
- the evaluation and monitoring of university strategic planning (Pro3 and MUR);
- the evaluation of university financial statements²¹⁴.

Through these indicators, the effects of the allocation criteria and performance of universities can be monitored. The ANVUR publishes a biennial report on the IHES to provide an overall assessment of the system's performance.

Each university will analyse how its FFO is composed in terms of indicators. It will monitor them and link them to the funding drivers. Each university's indicators and data are communicated with the Ministry (both the mandatory indicators and the ones linked to the *Programmazione Triennale* chosen voluntarily by the university). Data are shared with ANVUR. Then, performances are included in reports to show information on students, research, Third Mission and internationalization.

²¹² The Single Annual Form (Scheda Unica Annuale - SUA) is a management tool for designing, implementing, self-assessment and re-designing degree programs.

²¹³ MUR: other indicators provided by the Ministry.

²¹⁴ Some references for the indicators are:

<https://www.anvur.it/attivita/ava/indicatori-di-monitoraggio-autovalutazione-e-valutazione-periodica/> (ANVUR indicators);

Ministerial Decree 1059/2021 (FFO 2021);

Ministerial Decree 289/2021 (PRO3 2021 – 2023);

<https://ba.miur.it/> (University financial statement).

A2.6.6.3 Are there plans to revise the data collection to make it more useful for policy-makers and/or reduce the administrative burden?

Some of our respondents state that the complexity of the PBF mechanism is a critical point. The range of indicators included is quite broad. Calls are made to limit the number of indicators and simplify the funding system. However, so far there are no specific plans to revise the data collection to make it more useful for policy-makers and/or to reduce the administrative burden.

A2.6.7 Funding the EUI

A2.6.7.1 Does the national funding system support the goals of the European Universities Initiative (EUI)?

The Ministry of Education has supported the EUI during the first call, in 2019, providing a co-funding of €2,500,000 aimed at supporting the Alliances of ten public universities. In the second call, in 2020, the Ministry supported another ten state universities with a co-funding of €2,400,000. Costs covered by the co-funding are those related to:

- Travel and accommodation costs;
- Costs for mobility (for teachers, students, staff);
- Temporary staff for the project;
- Costs of conferences, travel, and equipment.

The Ministry also granted a contribution of €15,000 for each of the two universities associated within the only Italian-led Alliance (University of Turin) equal to a total of €30,000 for the current financial year.

A2.6.7.2 Is there a debate on changing (increasing) the national funding for supporting transnational collaborations between HEIs, or on changing the criteria for that support, e.g. conditions, flexibility, time period?

The debate on the EUI is not about modifying the national co-financing. Rather, it is about expanding the number of universities in the Alliances. One idea of the Ministry and universities concerns the possibility of assigning a national contribution to those universities that intend to participate in existing EUI projects as an associate partner, which at the European level is not co-funded, but could be supported at the national level. This could expand the number of universities participating in the EUI, as is already the case for the Alliance led by the University of Turin.

A2.6.8 Lessons and challenges

A2.6.8.1 What are the main lessons that can be drawn from the past when it comes to the functioning of the (PBF) funding system? What worked particularly well – or not so well?

In general, the new funding system has contributed to a “culture of data”. Universities and their management now understand the importance of managing data and information to enhance performance and, consequently, their FFO. Before 2010, this culture was rather absent; more important was the maximization of the budget. Universities thus have become more strategic. Some universities managed to attract more students, for example. However, the innovations were affected by the limited financial resources available, despite the budgetary improvements in recent years.

Some of our interviewees stated that, regarding the Reward Share, VQR is a good start point, but it needs improvements. Indeed, doubts were expressed about the evaluation period (i.e., research results achieved over four to five years). An evaluation covering one to two years was preferred for measuring recruitment quality.

Regarding the standard cost, some respondents felt that it has helped the university’s capacity planning, but considering students who are attending courses one year longer than the prescribed time was not. All respondents agree that another critical point of the standard cost metric is how it considers the socioeconomic differences between regions (i.e. the families and students living there). While the equalization component is aimed at reducing the impact of the differences in wealth among regions, a fact is that many more wealthy students are moving to universities in the wealthier northern or central regions of Italy. This leaves the south and the insular regions with the less wealthy students²¹⁵. Also, for this reason, it was felt necessary to improve the equalization component of the standard cost to better take into account the socioeconomic characteristics.

The funding system was felt to be unbalanced. The demand-driven element in particular is reinforcing the differences between institutions located in different geographical areas. Some respondents even state that the IHES is heading for a winner-takes-all market: the Northern and central universities have more power to attract students, they achieve higher performance levels, and gain more funds. This hurts the quality of teaching and outputs in other universities. In addition, it may tempt universities to “open their doors” to students who do not meet the selection criteria.

A2.6.8.2 What are the perceptions of the key stakeholders on the main challenges?

In line with the above lessons, one of the challenges identified in particular by our academia representatives is how universities can contribute to their regions and their locality - providing skilled graduates to the labour market and encouraging regional innovation. Thus, the challenge is to prevent a brain drain from the poorest regions.

²¹⁵ However, this effect is partially mitigated by the allocation of resources for the NoTax regions and the extension of the NoTax Area.

A2.6.8.3 What other policies and initiatives can be held responsible for the (non)-performance of the system? How do they work as incentives?

Italian higher education has experienced a decade of financial cuts. In addition, funds have often been accompanied by restrictions on their use. So, according to two of our interviewees, any effect of PBF is necessarily limited due to these facts. The financial restrictions also affect the possibility for universities to recruit new personnel. Consequently, universities face challenges in improving teaching programs and raising their attractiveness.

There are also differences in the universities in terms of their influence on government policy. Some HE institutions are better represented in the game and a real “referee” is missing. To improve the quality of the system, there are challenges to address in terms of guaranteeing equity and a fair competition.

A2.6.8.4 Do stakeholders hold different opinions on the changes to be made to the funding system?

Most interviewees hold similar opinions: They call for a revision of the demand-driven funding system and would like to rethink the contextual factor to improve the position of universities in disadvantaged areas. In this respect, the two-tier Bachelor-Master system seems to have worsened the position of the more isolated universities.

A2.6.8.5 References

Capano, Giliberto. “Government Continues To Do Its Job. A Comparative Study Of Governance Shifts In The Higher Education Sector.” *Public Administration* 89, no. 4 (December 2011): 1622–42. <https://doi.org/10.1111/j.1467-9299.2011.01936.x>.

Capano, Giliberto, Marino Regini, and Matteo Turri. *Changing Governance in Universities*. London: Palgrave Macmillan UK, 2016. <https://doi.org/10.1057/978-1-137-54817-7>.

Ezza, Alberto, Nicoletta Fadda, Gianfranco Pischedda, and Ludovico Marinò. “Performance-Based Funding in the Italian Higher Education: A Critical Analysis.” In *Digital Business Transformation*, edited by Rocco Agrifoglio, Rita Lamboglia, Daniela Mancini, and Francesca Ricciardi, 38:155–70. Lecture Notes in Information Systems and Organisation. Cham: Springer International Publishing, 2020. https://doi.org/10.1007/978-3-030-47355-6_11.

Fadda, Nicoletta, Ludovico Marinò, Gianfranco Pischedda, and Alberto Ezza. “The Effect of Performance-Oriented Funding in Higher Education: Evidence from the Staff Recruitment Budget in Italian Higher Education.” *Higher Education*, May 27, 2021. <https://doi.org/10.1007/s10734-021-00725-4>.

Massimiliano Bratti, Cicero Tindaro, Enrico Lippo, Carmela Anna Nappi, and Matteo Turri. “The Effect of Research Evaluation Exercises on Research Output: Fifteen Years of Evidence from Italy.” *Politica Economica*, no. 1 (2021): 13–42. <https://doi.org/10.1429/101938>.

Pischedda, Gianfranco, and Ludovico Marinò. “Children of a Lesser God? Demand-Driven Mechanism and the Potential Rise of Unequal Competition in IHES.” *Higher Education Policy*, April 6, 2021. <https://doi.org/10.1057/s41307-021-00230-4>.

A2.7 Netherlands

A2.7.1 Description of the funding system

A2.7.1.1 Introduction

The Netherlands has a binary system of higher education. The system consists of 18 research universities (including one Open University) and 36 universities of applied sciences (UAS). The UAS have more of a regional function and focus on education, although in recent years they also have started to strengthen their practice-based research, partly thanks to dedicated public funds for research and research-oriented staff positions. Compared to the UAS, the programmes of the research universities have more of a vocational character – they not only differ in focus, but also in access requirements, length (bachelor's degrees take four years to complete, instead of 3 years for research universities) and degree nomenclature. Research universities have a much wider variety than UAS in terms of master's programmes. Only research universities are allowed to award PhDs.

A2.7.1.2 How is the funding system structured? (The shares of formula funding, performance agreements and other funding approaches)

As far as the public funding of the university and UAS sector is concerned, the ministry of Education, Culture and Science makes use of a funding formula. This formula has included a significant performance orientation since early 1990s. In the formula's current version, the institutions receive their annual core funds for education and research partly on the basis of the number of completed degrees (Bachelor, Master, PhD) and the number of students that are registered for less than the stipulated time to degree.

With respect to performance-based funding (PBF):

For research universities, about 20 per cent of the (separate) formula-based education allocation is based on degrees and 35 per cent of the (separate) research allocation is also based on the number of (bachelor's, master's and PhD) degrees that have been completed. For the UAS, the part that is based on (bachelor's and master's) degrees is about a third of their education allocation. Given the relative sizes of the education and research budget for research universities, about a quarter of their public funding is based on performance indicators.²¹⁶ The other parts are based on the student enrolments indicator and on fixed (student-independent, historically-determined) allocations per institution.

The indicator 'students enrolled in their stipulated time to degree' signifies that universities only receive public funding for students who have been enrolled for less than the normative time to degree (officially, three years for a bachelor's degree and one to two years for a master's degree in the research universities; four years for a UAS bachelor's degree). Because institutions receive public funding for all enrolled students that are studying within the stipulated time to degree, they also receive funding for all international students.

216 See Jongbloed, B. & Vossensteyn, H. (2016), University funding and student funding: international comparisons. *Oxford Review of Economic Policy*, Volume 32, Number 4, pp. 576–595.

For student enrolments and degrees driving the formula-based education allocation, there are three discipline weights to reflect the different costs of programmes. The research allocation is partly driven by the number of PhD degrees granted by the research universities. Together, the education component and the research component produce the block grant – a lump sum that the HEI is free to spend across all activities that are in line with its education, research and social engagement missions.

The funding formulas for Education and Research also include fixed components that are independent of student enrolments. The sizes and shares of these fixed allocations differ across universities and have often been the subject of funding debates – sometimes leading to adjustments/additions by the ministry to the fixed components. The fixed allocations are mostly based on historical reasons and discretionary policies. On average, fixed allocations constitute 40% of the education budget and two-thirds of the research budget of the universities. For the UAS, the share of the fixed allocations is about 20%, so much smaller than for the research universities.

The basic principles of the funding mechanisms have not changed fundamentally over the past 30 years. However, over time various specific incentives have been provided (e.g., funds for providing selective programs for high potential students; stimulation of particular research areas; protection of particular education programs), some of which have been included in the fixed core funding components. Another example is the Gravity program (introduced in 2012), that is also part of the core funding. It encourages excellent inter-university research programmes and requires universities to submit proposal that are assessed by the National Research Council (NWO). Most of these policy incentives have been introduced through adjusting the fixed components in the institution's core fund.

The funding formula constitutes the most important mechanism driving the annual (core) funds of HEIs. Currently a small part of the core funding of research universities and UAS is driven by a funding contract, a Quality agreement (see below). In 2020, this contract covers 2,4% of the research universities' core funds. This share will grow gradually after 2020 and the Quality Agreements funds will rise from € 145m in 2021 to € 217m in 2024.

Apart from core funds, HEIs receive a substantial part (almost a quarter in the case of research universities) of their revenues from competitive third-party funds.

A2.7.1.3 What are the key goals of the funding system?

In the early 2010s, the goals of the Ministry of Education were to foster institutional profiling,²¹⁷ improve study success, reduce student drop-out and lessen time to degree. The Ministry included these goals in a white paper – its strategic agenda for higher education, “*Quality in Diversity*” published in 2011. One of the measures the Ministry took to implement this national agenda was the introduction of performance agreements in 2012.

In 2015, the Ministry's strategic agenda (*The Value of Knowledge*) emphasized the following three broad goals: (1) World Class Education, (2) Accessibility, Talent development and Diversity, and (3) Social Relevance.

In the most recent (2019) strategic agenda (*Fit for the Future*), the key goals are: (1) More accessible higher education and greater student success, (2) Flexible higher education, (3) Closer alignment with the labour market and society, and (4) Regional bedrock and international cooperation.

217 See: Veerman, C. et al. (2010). Threefold Differentiation. For the sake of quality and diversity in higher education. The Hague: Ministry Of Education.

A2.7.1.4 What is/was the motivation/ rationale for the current (PBF) funding system? (issues it aims to address)

The current system is the result of a development that started in the early 1990s and that made core funding allocations already partly dependent on performance. This started in 1993, when the enrolment indicator in the funding formula was only including students studying within their normative time to degree. In addition, research funding was partly made dependent on the number of PhD degrees awarded. This was meant to introduce incentives aimed at degree completion. In 2000, the education part in the formula was revised to also include the number of degrees completed by students. Currently some 20% of the university's education component is based on this indicator, and 35% of the research component is based on PhD degrees and (Bachelor's and Master's) degrees. This is in line with the Ministry's goals of improving study success and increasing the performance-orientation in higher education policy.

Several reasons can be mentioned for the changes made to the funding mechanisms in the recent decade. Performance agreements, introduced in 2012, were meant to *increase differentiation* in higher education (building on the 2009 advice by the Veerman Commission). In the Ministry's view, performance agreements were also necessary because institutions were making too *little progress to improve* the quality of education, especially to reduce student dropout and increase degree completion. Although the performance agreements proved effective in several respects, it was decided under pressure from institutions and students not to continue them. Part of the reason for discontinuation was the dissatisfaction with the choice of indicators in the agreements, the bureaucracy surrounding the agreements, and the financial consequences of delivering (or not) on the agreements.

In 2017 / 2018, four universities of technology indicated that, due to the increase in the number of engineering students, the existing funding mechanism had become obsolete and did not reflect anymore the financial pressures they faced. The Education minister promised to investigate this further and asked for an exploration of revisions of the funding system.²¹⁸ This was followed by an advisory commission (the Van Rijn committee), that concluded that a revision was indeed necessary.²¹⁹ However the commission advised that major revisions had to wait until more insights are available on the actual costs of education and research. The committee advised that, for now, a change was necessary revision in the ratio of performance-dependent allocations and performance-independent (i.e. fixed) allocations, so as to reallocate funding to the STEM subjects and reduce the competition element in the funding system. It also advised to increase the transparency on cost differentials between disciplines. The Minister accepted the advice and ordered an investigation into these issues. In 2021, the results of this investigation were published²²⁰, but no decisions on its follow up have been made so far.

The change in the ratio between fixed and variable funding was made to make the institutions' budget less dependent on the number of students and thereby reduce

218 See: Jongbloed, B., H. de Boer, F. Kaiser, H. Vossensteyn (2018), *Bekostiging van het Nederlandse hoger onderwijs: kostendeterminanten en varianten*. Onderzoek uitgevoerd i.o.v. het Ministerie van OCW. Enschede: CHEPS.

219 Adviescommissie Bekostiging Hoger Onderwijs en Onderzoek (2019), *Wissels Om. Naar een transparante en evenwichtige bekostiging en meer samenwerking in hoger onderwijs en onderzoek*. Den Haag: Xerox/OBT.

220 Strategy& (2021), *Toereikendheid, doelmatigheid en kostentoe rekening in het mbo, hbo en wo&o*. Amsterdam: PWC Strategy&.

institutions competing for extra students. This would create more stability. For the research universities, the ratio used to be 72% (variable): 28% (fixed); it changed to 60%:40%. For the UAS it changed to 80%: 20% (earlier this was 87%: 13%).

A2.7.1.5 Did any major reforms/ changes take place in recent years?

In the period 2012-2016 there was a brief experiment with performance agreements. The performance agreements were a new steering instrument of the Ministry. Until that time, Dutch higher education already had a long tradition of steering by means of a strategic dialogue between Ministry and institutions. However, there had never been bilateral agreements – let alone agreements that had a link to funding. In 2011, the dialogue between the ministry and individual institutions had become more like a ritual.²²¹

Following up the advice of the Veerman advisory committee, it was decided to introduce performance agreements. For the contract period 2013–2016 a share of 7% of the education component in the institutions' annual core funding was tied to performance agreements.²²² The remainder of the core grant continued to be based on a funding formula.

The agreements were signed between the Education Ministry and each individual HEI. They were formulated both in terms of quantitative indicators and qualitative ambitions. The agreements aimed at:

Improving the quality of education in universities and universities of applied sciences in terms of, among other things, measures of students' success and other indicators of quality;

Enhancing programme differentiation within and between HEIs, encouraging HEIs to exhibit more clear education profiles and focused research areas. This should produce a higher level of diversity in the higher education system;

Strengthening the focus of universities and UAS on their valorisation function (i.e. knowledge exchange, research commercialization, promoting entrepreneurship).

- In the next section (Does the funding system work?), we will discuss whether the performance agreements have had the desired results.
- A *Review Committee* consisting of five independent higher education experts was installed by the Education Minister in 2011 to oversee the performance agreements. The committee's task was to develop criteria for assessing the agreements, monitor each institution's progress in realizing its ambitions during the contract period, and, at the end of the period (in 2016), make a recommendation to the Minister about whether the goals in the agreement had been met. If a HEI did not achieve its agreed goals, it risked losing part of the core grant for the years ahead. It should be mentioned that the performance agreements were set up as a policy experiment. Depending on an external evaluation, the future of the performance agreements experiment was to be determined in 2017.

221 De Boer, H., R. Kolster & D. Westerheijden (2019), *Beleidsdoorlichting Hoger Onderwijs 2015-2018. Sturing en beleidsinstrumentanalyse*. Report for the Netherlands Initiative for Education Research (NRO). See: <https://www.utwente.nl/en/bms/cheps/news/2019/12/483528/governance-and-policy-instrument-analysis-in-dutch-higher-education>

222 This amounts to about 3.5% of the research universities total core budget and slightly less than 7% of the UAS' core budget.

- For their performance agreements, HEIs agreed with the Ministry to make use of seven mandatory indicators to state their ambitions with respect to improving student success and educational quality. The indicators used for this were: student completion (Bachelor students only), student drop-out rates in Year 1, share of Year 1 students switching to other programmes, the number of students in honours programmes (aimed at students selected on the basis of their talents and motivation), student satisfaction scores, teaching intensity (i.e. the number of student contact hours per week in the first year of degree programmes), academic staff qualifications (e.g. the share of academic staff holding a University Teaching Qualification), and the share of overhead (indirect costs). Two of these performance indicators, completion rates and drop-out rates, received the most attention in the annual monitoring and, eventually, the final conclusions of the performance agreements.
- The HEIs' ambitions with respect to increasing programme diversity and institutional profiling were stated in more qualitative terms, relating to topics such as starting new degree programmes and phasing out old ones, introducing student mentoring programmes, setting up research centres, and engaging in partnerships with local business.

Another reform was made in the performance-premium for producing PhDs. For research universities, the premium attached to the number of dissertations (PhDs) completed changed in 2017. Before 2017, universities received a fixed premium for each completed dissertation. After 2017, universities receive a share of the fixed amount available for PhD premiums (as part of the universities' research allocation), depending on their share of completed PhDs. This meant that the premium per dissertation from then on depended on the total number of completed dissertations and implies that, if nationally the number of dissertations increases, the premium will decrease.

Yet another reform, already mentioned above (section 1.4), was the revision (made in 2020) of the balance between the variable and the fixed components in the funding formula. to provide more funding stability to the higher education sector and reduce competitive pressures. Together with this reallocation of education funds, there was also a transfer from the competitive (i.e. non-core) funds awarded by the national research council (NWO) to the core funds awarded by the Education ministry. One of the additional reasons for this reallocation was to reduce the pressure on universities to provide co-funding (i.e. matching funds) from their own core funds when they acquire competitive funds.

A2.7.2 Does the (PBF) funding system work?

A2.7.2.1 What are the positive (intended) and negative (unintended) effects of the system in terms of the three missions (education, research, engagement) of higher education institutions?

About the performance agreements:

At the end of 2016, the Review Committee made an assessment of each institution's performance in light of its ambitions. The information was presented to the Review Committee through the institution's annual reports and a meeting with the committee. A summary of the results of the performance agreements was published by the committee in its 2016 Annual Monitoring Report (Review Committee, 2017a).

The Review committee made a positive assessment of the performance agreements of the research universities. Evidence from the Review Committee's system performance reports²²³ shows that the research universities managed to increase completion in education, from on average 60% to 74%. Drop-out rates in the first year of degree programmes declined from 17% to 15%. The sharpest rise in completion can be observed among the four universities of technology: from an average of 42% to 68%. For many research universities, the 2015 completion rates equalled or exceeded their ambition. At two of the four universities that fell short the 2015 completion rates were close to the target values. In terms of the diversity goal, results were inconclusive.

For the universities of applied sciences, the assessment of the Review Committee was less positive. The disappointing results for these institutions with regard to student completion can in part be attributed to the trade-offs they made between widening access, maintaining quality standards and raising completion rates. Most UAS favoured access over completion and therefore found it difficult to achieve the completion rates targets they had set.

In the UAS sector, the average completion rate fell from approximately 70% to 67%. However, drop-out in the freshman year was pushed back slightly, from 27% to 26%. A relatively large number of UAS failed to realise their ambitions. Large differences between the UAS can be observed. Apart from the fine arts colleges, many UAS saw their completion rates drop to percentages that were not just lower than ambition levels, but also lower than the starting position. In quite a few cases, there was a persistent downward trend in the numbers that only appeared to take a turn for the better in the final year of the performance agreements.

The performance agreements pushed research universities and UAS to become more transparent about their efforts and success in areas such as improving students' degree completion. Transparency also improved in other areas, because the agreements in principle covered multiple dimensions of institutional performance: education, research and the ways in which institutions relate to their stakeholders/communities and regional partners.

When it comes to the goal of programme differentiation and encouraging institutions to exhibit more distinct profiles in education and research, there was no clear evidence of increased diversity. Most institutions showed a tendency to spread their degree programmes more equally across disciplinary areas – and this was also the case for their research.²²⁴

The performance agreements have therefore produced mixed results. However, in evaluations of the policy experiment published in 2017 by three different committees, the conclusions were overall positive. First, the Review Committee itself produced an evaluation report.²²⁵ Second, the association of UAS produced its own evaluation.²²⁶ Third, the Minister ordered an (other) independent committee to evaluate the experiment and make recommendations for a future system of performance agreements.²²⁷ The three

223 See: Review Committee (2017), System Report 2016. The Hague: Higher Education and Research Review Committee .

224 Jongbloed, B., F. Kaiser, and D.F. Westerheijden (2019), Improving study success and diversity in Dutch higher education using performance agreements. Tertiary Education and Management, pp. 1-15. <https://doi.org/10.1007/s11233-019-09055-8> .

225 Review Committee (2017), Prestatieafspraken: Het Vervolgproces na 2016. Advies en Zelfevaluatie. Den Haag: Review Commissie. Available from <https://zoek.officielebekendmakingen.nl/blg-802517.pdf>

226 Slob, A., Jeene, B.G., Rouwhorst, Y.T.M., Theisens, H.C., & van Welie, E.A.A.M. (2017), Kwaliteit door Dialoog. Eindrapport van de commissie prestatieafspraken hbo. Den Haag: Vereniging Hogescholen.

227 Evaluatiecommissie Prestatiebesteding Hoger Onderwijs (2017), Van Afvinken naar Aanvonken. Den Haag: Ministerie van OCW.

committees agreed on many issues. On the positive side, they concluded that the performance agreements had contributed to the following outcomes:

Putting study success more prominently on the institutions' agendas;

Intensification of the debate about the drivers of study success (both among universities and within universities' departments);

More attention for the profiling (differentiation, focus areas) of institutions;

Improvement of the dialogue between stakeholders in higher education (i.e., the executive boards of universities, Ministry, department heads, rectors' conferences, Review Committee, representatives of business and community), including the possibility for the institutions to share their 'story behind the numbers' with the Review Committee;

Increased transparency and accountability, thanks to setting targets and using indicators.

Higher education institutions and student associations were less positive about:²²⁸

- the decline of institutional autonomy, due to the setting of targets and the use of mandatory indicators;
- the additional bureaucracy and administrative costs, due to the emphasis on reporting and indicators;
- the financial penalty associated with the non-achievement of goals;
- the choice and definition of indicators, which in some cases contributed to unintended effects (e.g. an over-emphasis on quantitative outcomes instead of qualitative achievements);
- the lack of time available for a well-considered design of procedures and 'rules of the game' with respect to the policy experiment;
- the impression that the experiment was managed largely by stakeholders (executive boards, managers, ministry, national committees and organisations) that were quite distant from the 'shop floor level', with a small role only for students in this process.

In the evaluations of the performance agreements by the three evaluation commissions, the need was reaffirmed to incorporate a performance-oriented component in the funding mechanism for higher education institutions. The then Minister of Education expressed her intention to continue with some form of performance agreements, but was keen to stress that the agreements should ultimately be about the quality of higher education and that quantitative targets should not receive priority over qualitative ones.

There were different opinions on the topic of potential financial sanctions tied to agreements. On the one hand, the Review Committee in its evaluation concluded that attaching financial consequences to agreements fosters their effectiveness. It argued that both the international literature and the Dutch experiment have shown that agreements are taken more seriously by all the parties, and have greater impact, if financial consequences are attached.²²⁹ Universities of Applied Sciences expressed a preference to reward institutions that fully delivered on the performance agreement, but not punishing the ones that did not meet their objectives. In particular, the financial penalty associated with the non-achievement of goals was perceived as unfair by the UAS sector.

The rectors' associations at the start of the experiment was sympathetic to the concept of performance agreements. However, upon conclusion of the experiment it lost its enthusiasm for performance agreements and stated that the institutions should have more autonomy to decide on their ambitions in a dialogue with their internal and external

228 Interview with Association of Universities, May 2021

229 Review Committee (2017), *Prestatieafspraken: Het Vervolgproces na 2016. Advies en Zelfevaluatie*. The Hague: Review Committee.

stakeholders and also primarily be accountable to those same stakeholders. They indicated that as institutions they should primarily be accountable not to their hierarchical superiors (i.e. the Ministry) but to their students, regional stakeholders and professional organisations (e.g. research foundations, industry).

In 2018, the decision was made to continue some form of performance agreements under the label 'Quality Agreements'. The quality agreements started in 2018, when the minister of education, culture and science signed sector agreements with the universities' and the UAS' umbrella organizations.²³⁰ These agreements only concern educational quality and are no longer about research and valorisation. There will be mild financial consequences attached to the agreements and less steering by the government in the process. Indicators play a minor role; their role is determined by the HEI itself. There will no longer be an independent review committee. Instead, the assessment process has been placed with an existing organization, the national accreditation agency (NVAO), that has integrated the monitoring of quality agreements in its regular assessment of the institution's educational quality. The accreditation agency, however, has had to make use of information and assessments coming from different places and committees. The latter complicated the transparency and consistency of the processes needed to approve the agreements. In any case, HEIs are expected to discuss progress in implementing the agreements in their internal decision-making bodies with a bigger role for student representatives.

The quality agreements specified how the 'study advance funds' would be used. The study advance funds resulted from the 2015 reform of the students support system, when universal student grants were abolished and replaced by student loans. The government promised to re-invest the public funds that were released in education and to channel the funds to higher education institutions. These financial resources are intended to improve the quality of education.

The quality agreements cover the period 2019 to 2024 and focus on six themes:

- More intensive and small-scale education (educational intensity).
- Educational differentiation, including talent development within and outside the study.
- Further professionalization of teachers (teacher quality).
- Appropriate and good teaching facilities.
- More and better guidance of students.
- Study success, including throughput, accessibility and equal opportunities.

The institutions were asked to submit concrete plans on one or more of these themes. A condition was that the plans are developed with substantial involvement of students, teachers, and relevant external stakeholders such as companies, regional governments, other educational institutions, administrators and supervisors. This reflects the earlier concerns that performance agreements were primarily a matter for institutional management.

Not achieving the intended quality improvements laid out in the quality agreements is not meant to have immediate financial consequences for the institution in question. If there is insufficient indication of progress, money can be withheld from the institution, but in principle the funds will be channelled back to the institution's teaching staff in the form of scholarships to help staff improve their pedagogical skills.

About the funding formula

The Ministry identified some problems related to funding in its most recent strategic agenda (see section 1.4 above). It felt that the funding system for higher education,

²³⁰ Ministry of Education (2018). Aanbieding sectorakkoorden hogescholen en universiteiten. (Letter to Parliament). Brief aan de Tweede Kamer, 9 April 2018. The Hague: Ministry of Education.

largely based on student numbers, has proved to be a strong incentive to attract as many students as possible. A special advisory committee (the Van Rijn Commission) had been appointed in 2018 to look at the most urgent problems, which came to the fore in particular in the (four) universities of technology. These universities were confronted with a rapid increase in student numbers that was not matched with an increase in their core funding.

The advisory commission (Van Rijn) advised to reduce the student-dependent core funds and increase the fixed (student-independent) funds. This advice was implemented. Tying the core funds to degree completion was not seen as having a negative impact on the quality in education and research.

The Education Ministry as well as other stakeholders in Dutch higher education, stated that the degree of competition for research funding had reached unsustainable levels. Although research has always been a competitive undertaking, there are currently so many researchers that competitively make grant applications that only a small proportion can be granted. This competition for funding puts an especially great burden in terms of workload and work pressure on university staff. On top of that, the growth in the universities' core grant for research (as part of the funds distributed by means of a formula) has not kept pace with the increase in the core grant for education. This is seen as negatively affecting the interaction between education and research. According to the Association of Universities [interview, May 2021], there are two related issues connected to this:

- The funding model is a distribution model. It merely serves to distribute the available volume of funds among the universities and UAS. The parameters used for this distribution (e.g., funding per student across the three main disciplinary domains; student-independent allocations per institution) over time have not been adjusted in any fundamental sense. This implies that funding is a 'zero sum game': if one institution wins, another will lose.
- The volume of funding has not kept pace with the increase in student numbers, contributing to high workloads in academia.

At the Ministry, there are currently no plans to completely overhaul the funding mechanism. The Association of Dutch Universities (VSNU) would like to replace the current allocation model with one that is based on a realistic funding for the ambitions and social tasks of universities. This option was inspired by the system of Rolling Grants [interview with Rectors' Association, May 2021] launched by the Royal Academy of Sciences (KNAW).²³¹ The Academy of Sciences advocated a rolling grant fund to support curiosity- (i.e. researcher-) driven research, thus reducing the pressures on researchers to apply for competitive research grants from research councils, ERC, et cetera. Such a research grant should provide working capital to Assistant, Associate and Full Professors with a permanent position in universities. These academics would be able to use the grants during different stages in their scientific careers, thus allowing them to develop their research.

Rolling grants therefore provide stability and less pressure. The universities feel that a model like this can also be used for the core funding of universities. The model would be based on institutional ambitions and expectations to deliver on these. It would be an 'efforts-driven' model instead of a results-driven (i.e. performance-driven) approach. The association of universities however has so far not further developed the design of a rolling grants system.

231 KNAW (2020), Het Rolling-GrantFonds. Kloppend hart voor ongebonden Onderzoek. Amsterdam: KNAW.

The rectors' association is slightly in favour of a system of nation-wide plans (known as sector plans) in which universities agree among themselves on their future plans to cover a particular disciplinary area with their degree programs and their research. As part of these sector plans, some universities may decide to abandon particular programs and concentrate on others. Sector plans have been in place already for some time and for some disciplinary areas, but opinions differ on their effectiveness and on how they can (or should) be linked to public funding.

The above-mentioned study by Pricewaterhouse²³² addressed the question whether the overall budget for higher education is sufficient to cover the costs incurred by the institutions for their education and scientific and practice-oriented research. The study concludes that overall funding for the research university sector is insufficient, but for the UAS it largely is sufficient for the funding of the UAS' education mission.²³³ For research universities, this has meant that capital expenditures and support structures are in decline and the workload for academics has increased. The study concludes that the financial opportunities for universities to initiate curiosity-driven research are limited and decreasing. It suggests that overall funding should be increased by around one billion euros. However, on the question to what extent the funding rates of programs can be set in such a way that they more closely approximate the actual costs of the programs the report does not provide an answer.

A2.7.2.2 What are effects on inclusion, innovation of Teaching & Learning and on transnational collaborations?

In its yearly State of Education reports, the Inspectorate for Education²³⁴ pays attention to issues around inclusion and selectivity. In particular, it looks at access and student success among students with a non-Western migration backgrounds and other underrepresented students. In the Performance Agreements, such issues were often part of a HEI's ambitions. In the Quality Agreements, these ambitions re-appear as part of the quality investments undertaken by HEIs. However, no studies exist on the causal links between the funding system and the effects on inclusion.

Innovations in teaching & learning (T&L) are addressed in quality assurance exercises and encouraged in particular by means of dedicated program funding. There is no direct financial incentive incorporated in the funding formula that addresses innovations in T&L, as this is largely seen as a matter that is part of the ongoing attention that HEIs have for the quality of their education. However, through project funding provided by national organisations such as NRO (a part of NWO, the research council) additional incentives are provided to encourage innovations in T&L – for instance in terms of implementing technology-enhanced learning, increasing the expertise of lecturers and disseminating innovative didactical approaches.

The topic of transnational collaborations was included in some performance agreements and HEIs often pay attention to international Alliances and other strategic partnerships in their annual reports. However – again – no direct relationship has been found between the core funding mechanisms and transnational collaborations. Internationalisation is included in the list of strategic ambitions of the Ministry of Education (see section 1.4 above) – together with the issue of regional outreach by HEIs.

232 Strategy& (2021), Toereikendheid, doelmatigheid en kostentoerekening in het mbo, hbo en wo&o. Amsterdam: PWC Strategy&.

233 However, UAS feel that it is insufficient for the funding of their practice-oriented research mission.

234 Inspectie van het Onderwijs (2021), De Staat van het Onderwijs. Utrecht: Inspectie van het Onderwijs.

A2.7.3 Data collection and performance monitoring

A2.7.3.1 Is there evidence to support the positive/negative effects touched upon in the previous question?

The positive/negative effects of the funding system are regularly studied by the Ministry of Education, that every now and then seeks advice from a special commission or initiates research on particular issues related to governance and funding arrangements. Examples of the latter are the Veerman Committee²³⁵ and the Van Rijn Committee.²³⁶ There are several public and semi-public organisations, agencies and bodies (e.g. the Education Council, and the Advisory Council on Science, Technology and Innovation) that regularly publish studies on trends and developments in higher education.

In addition, yearly State of Education reports are published by the Education Inspectorate. These reports²³⁷ touch upon issues related to study success, drop-out, access in higher education, education quality, student well-being and governance.

A2.7.3.2 How are the effects of the funding system (its impact on performance) monitored?

A2.7.3.3 What data (which indicators) are collected? (What data is exchanged between HEIs and funding agencies?)

The performance of HEIs is reflected in their annual reports that cover all missions and include information on students, research, societal engagement, internationalisation (including transnational Alliances) and student and staff well-being. To be eligible for public funding, HEIs have to submit student- and degrees-related data to national agencies that are responsible for funding, student registration and student support. These data refer to student numbers, student progress, degree completions and PhDs granted. Also, financial data are reported – on expenditures, revenues (e.g. from fees and research grants – including competitive grants) and the composition of staff. Data that is related to the quality assessments in education and research is usually exchanged with the external peer review teams in charge of the evaluations. However, the outcomes of these assessments are not translated into decisions on the volume of an institution's (or department's) core funding.

Based on these microdata, the Education Ministry compiles various overviews in its budget and its communication with the Parliament. The agency DUO publishes data on publicly funded (higher) education and compiles overviews of the main trends. The national accreditation agency NVAO surveys developments related to the quality of higher education. The NVAO reviews the quality of academic degree programmes and HEIs and

235 Veerman, C. et al. (2010). *Threefold Differentiation. For the sake of quality and diversity in higher education.* The Hague: Ministry Of Education.

236 Adviescommissie Bekostiging Hoger Onderwijs en Onderzoek (2019), *Wissels Om. Naar een transparante en evenwichtige bekostiging en meer samenwerking in hoger onderwijs en onderzoek.* Den Haag: Xerox/OBT.

237 For instance: *Inspectie van het Onderwijs (2021), De Staat van het Onderwijs.* Utrecht: Inspectie van het Onderwijs.

it assesses the quality agreements (see above). The quality of research is assessed by the HEIs themselves through their representative organisations (i.e. the Association of Universities – the rectors' association), according to standards agreed with the Royal Academy of Sciences. The outcomes of quality assessments are made public and HEIs usually mention them in their annual reports or on their websites.

The information related to quality agreements is included in reports prepared by higher education institutions and is communicated to the accreditation agency (NVAO) that monitors and evaluates the quality agreements. The accreditation organisation approves each quality agreement and carries out two evaluations during the period 2019-2023: a mid-term evaluation in 2022 and a final evaluation in 2023/24, upon completion of the agreement. The information related to the quality agreements consists primarily of qualitative information prepared by the higher education institutions. There is no fixed format or a list of indicators for this information.

A2.7.3.4 Are there plans to revise the data collection to make it more useful for policy-makers and/or to reduce the administrative burden?

As part of the discussion on the adequacy of the funding for higher education,²³⁸ there was a debate on the parameters in the funding formula – in particular, the funding rates that featured as weights for enrolments and degrees. Following up on a report commissioned by the education Ministry that looked at funding rates and options to reform funding, the above-mentioned report by PricewaterhouseCoopers (PWC)²³⁹ concluded that there currently is too little transparency in the actual costs of education to make a sound recommendation on revising the funding formula. Calls were made to increase the transparency and currently work is underway to provide more detailed (i.e. discipline-oriented) information on the costs of instruction and research. This has not, so far, not had consequences for the reporting on performance.

The PWC researchers experienced that information on student/staff ratios proved to be scarce. Information on time spent by academics is equally scarce. Both types of information are essential for increasing insights on the quality of higher education as well as the cost of education.

The data exchanged constitutes a moderate administrative burden for the HEIs. Most information is information that the higher education institutions needs and collects anyway for its operations.

A2.7.4 Funding the EUI

A2.7.4.1 Does the national funding system support the goals of the European Universities Initiative (EUI)?

238 Strategy& (2021), Toereikendheid, doelmatigheid en kostentoe rekening in het mbo, hbo en wo&o. Amsterdam: PWC Strategy&.

239 See: Jongbloed, B., H. de Boer, F. Kaiser, H. Vossensteyn (2018), Bekostiging van het Nederlandse hoger onderwijs: kostendeterminanten en varianten. Onderzoek uitgevoerd i.o.v. het Ministerie van OCW. Enschede: CHEPS. Available here.

A2.7.4.2 Is there a debate on changing (increasing) the national funding for supporting transnational collaborations between HEIs? (or on changing the criteria for that support? (e.g. w.r.t. conditions, flexibility, time period)

In the Netherlands, 11 universities and 2 UAS participate in a European University Alliance. These Alliances each receive €5 million from the Erasmus+ programme for the first three years. The 17 Alliances of universities selected under the first call of the EUI programme also receive a complementary €2 million support from Horizon 2020. The Alliances also receive funding from other sources, that is: their national/federal government, regional governments, other European funds, and private funds. On top of that, most institutions invest some of their own resources in the Alliances.

The goals of the European university Alliances correspond quite well with the national goals that focus on widening access, improving student success and encouraging internationalization (see section 1.3). The Alliances in many ways focus on innovations in teaching and learning that contribute to these goals, because, among other things, they work on flexible learning pathways, ways to encourage social inclusion and international student mobility (e.g., through international classrooms). This alignment is put forward by universities in their requests to the Education Ministry for additional financial support for the European University Alliances. However, the Dutch institutions participating in the Alliances do not receive any additional funding (or co-funding) from the national government. They have lobbied for national subsidies from the Dutch government, but so far without success.

The Ministry has indicated that it cannot make additional budgets available for further supporting the EUI. In the Ministry's view [interview, May 2021], the international students in the Alliances are not new additional students. Within the existing legislation around funding, providing extra funds for these international students is not possible as part of the student-related funding component. The reason is that these students are officially not enrolled at a Dutch university – they do not pay tuition fees. An option would be to provide public funding through the fixed (student-independent) component that is part of the education budget. However, this funding then would have to be subtracted from the student-dependent part, because no additional resources are available. That option was not acceptable for the universities as it would tie the funding to a specific use and that would be regarded as an infringement on their financial autonomy.

The institutions participating in a European University Alliance make funds available for the Alliance from their own resources – say, their own core funding. Institutional contributions differ from one institution to the other. For example, the University of Twente invests € 4.4 million over three years as part of its Alliance activities in the ECIU university.²⁴⁰ This is mostly for covering personnel costs. Contributions of other universities participating in an Alliance very much differ between universities from different countries.

240 See: <https://www.utoday.nl/news/69020/ut-invests-44-million-in-eciu-university>

A2.7.5 Lessons and challenges

A2.7.5.1 What are the main lessons that can be drawn from the past when it comes to the functioning of the (PBF) funding system? What worked particularly well – or not so well?

From the experiment with performance agreements, the following lessons can be drawn up:

- Performance agreements have incentivized institutions to focus more on study success;
- HEIs are very concerned about protecting their autonomy. They are hesitant to commit to very concrete performance targets. They are however sympathetic to the idea that their ambitions for the future be specified to inform the core funding, but quantitative targets are seen as a bridge too far.
- The performance agreements experiment has shown that linking performance to the (future) financial allocations works in incentivizing HEIs. However, HEIs prefer a form of PBF that rewards good performance and prevents HEIs from experiencing budget cuts in case of underperformance. The latter would imply that funding becomes more improvement- and learning-oriented and less of a punitive approach.
- There is a lot of competition in research already, therefore it is not seen as particularly helpful to increase the presence of performance-based funding in research. The funding system/formula should not reward activities that are already financially incentivized in another way. This prevents duplication and administrative overload (see next item).
- The performance agreements were covering a large set of dimensions. According to the HEIs, this meant that HEIs had to deal with high compliance costs. Ensuring that the preparation and monitoring of performance (or quality) agreements is integrated in the ongoing activities and governance arrangements (also the committees/units where students have a seat at the table) that are already in place will contribute to the acceptance of the agreements. The number of goals, indicators and their links to financial rewards and sanctions will have to be limited. This implies a 'Keep it simple' approach.
- Goals and indicators included in funding arrangements need to be decided in a dialogue between the (funding) authorities (say, ministry, funding agencies) on the one hand and the HEIs, their students, their regional partners, and other relevant stakeholders on the other.

When it comes to the effects of the formula-based part of higher education funding, the lessons learned are:

The performance elements in the formula are largely accepted (i.e. students enrolled within the official normative programme duration, diplomas, PhD degrees), but the other, largely historical components in the formula are in need of a clear underpinning. Such an underpinning may have to refer more to the size and character of the institution.

The funding formula is very much dependent on student enrolments, which makes HEIs focus on increasing enrolments at the expense of other HEIs – thus increasing competition between HEIs. This is amplified by the zero sum character of the core funding system.

Connected to the previous point, a performance-based system is accepted more broadly by the higher education stakeholders (HEIs, students, lecturers) if it is less focused on competition and more on guaranteeing stability in funding and supporting collaboration between HEIs.

There is a fair amount of interaction between core funding and competitive third party funding. Success in generating competitive funding in many cases has required HEIs to make use of their core funds to cover the full cost of the research projects acquired by their researchers. This affected the HEIs' freedom to make use of core funds – for research as well as educational purposes. Therefore, policy makers and funders have to be careful about the implications of the competitive elements in core funding and the allocation of public project funding,

Whether performance agreements, or indeed performance-based funding formulas matter for the performance of higher education is a question that cannot be answered on the basis of the Dutch experiment with performance agreements alone. Although there are some insiders who claim that the agreements were indeed effective, causality is difficult to prove.

A2.7.5.2 What are the perceptions of the key stakeholders on the main challenges?

The main challenges around funding (and PBF) are as reported above:

- increasing the size of public higher education funding (given recent reports and claims expressing concern about rising student numbers and overstretched academics)
- decreasing the degree of competition – competition among HEIs for students and competition among researchers for research grants
- increasing transparency when it comes to the costs of education and the costs of research – to inform funding rates and assess the adequacy of funding
- dealing with (i.e. assessing and funding arrangements around) the quality agreements (that are based on the funds freed up because of the abolition of universal student grants)

On challenge #1: The current ministry does not have immediate plans for revising the core funding system. It does not contest the claim (from HEIs and students) that the funding levels are insufficient, and it has announced plans to increase the volume of public funds.

On challenge #2: There is a broad agreement on the goal of making the funding system more stable – that is: less dependent on student enrolments (that are variable). However, the current funding mechanism is a zero-sum game, implying that any changes in the system will result in winners and losers among the HEIs as long as no extra budget is made available.

On challenge #3: Both the ministry and parliament are probably not prepared to make additional money available as long as the HEIs cannot tell what it will be used for and what the true cost of education and research is. This has encouraged the research universities to start working on making the costs of their activities more transparent. For inspiration, the HEIs are looking at the UK, where a TRAC (Transparent Approach to Costing) system has been in place for a few years already.

On challenge #4: Transparency also refers to performance. The Court of Audit (in Dutch: Algemene Rekenkamer) in 2018 voiced some criticism on how the extra funds tied to the

Quality Agreements were spent.²⁴¹ The Court of Audit stated that, despite an earlier critical report on the use of the ‘study advance funds’, the HEIs did not provide sufficient accountability for the extra funds they received (or invested from their own resources) for raising the quality of education. This conclusion was based on an examination of the annual reports of the HEIs.

A2.7.5.3 What other policies and initiatives can be held responsible for the (non)-performance of the system? How do they work as incentives?

According to the Dutch HEIs and the Education Ministry, the well-functioning quality assurance system in the Netherlands can be said to have an impact on the performance of higher education and research. The quality assurance systems in education and research directly affect issues such as student success, innovations in teaching and learning, inclusion and, also, the productivity and impact of Dutch researchers.

When it comes to research performance, the Dutch science system has often been characterized as being driven by *friendly competition*. In science, competition is natural. Yet, collaboration is important as well. In its ambition to encourage excellent research, the research council (NWO) has introduced an excellence policy and excellence grants, including:

- The Veni-Vidi-Vici programme aimed at individual researchers in particular stages in their research career.²⁴²
- The Open Competition programme for researcher-driven (bottom-up) research proposals.
- The Gravitation programme, aimed at research consortia consisting of excellent researchers focusing on a long term (10 year) research theme.

The existence of these competitive programmes has contributed to building a tradition of competition in research in the Netherlands. Dutch researchers are used to competition. However, success rates for these excellence programmes are relatively low and this is seen as highly problematic. An issue/problem here is the Matthew effect (the accumulation of grants by successful researchers).

The term ‘friendly competition’ expresses the need for collaboration between researchers across universities in project teams, in consortia, and in strategic collaborations (e.g., European University Alliances). Funding programmes urge researchers to work together nationally and internationally. Increasingly, partnerships are also formed with private (e.g. business) organisations (Public-Private Partnerships).

Other features that underlie the performance in Dutch research:

241 See: Algemene Rekenkamer (2018), Voorinvesteringen en medezeggenschap hoger onderwijs. Den Haag: ARK. See: <https://www.rekenkamer.nl/publicaties/rapporten/2018/01/25/voorinvestering-en-medezeggenschap-hoger-onderwijs>

242 The Veni-Vidi-Vici (VVV) programme has been in place for some time already, which implies that Dutch researchers are used to competing for research money. VVV was actually the model on which the ERC grants (Starting, Advance, Consolidator) were developed.

The Netherlands is very much an open country, academics are used to seeking partners outside of their university. Researchers are also cooperating because the Dutch science system is small; therefore, capacities and facilities need to be shared.

The Netherlands is relatively small, and it has strong connections and networks among researchers. Academics are situated close to each other.

- The Netherlands has a tradition of negotiation and consensus (known as the Polder Model).
- The Netherlands has a long tradition of quality assurance in research. The research assessments are run by the universities themselves. The assessment results are public, but on the national level are not tied to funding decisions.

On the downside: success rates for competitive grant schemes are quite low and they are perceived as academic career bottlenecks. Core funding for research is seen as limited, also because of the co-financing rules (the matching funds principle²⁴³). The rules of VVV (who submits, how often, and what if successful?) are being reconsidered now. Universities are forced to think ahead about young researchers' career paths and not leave career decisions to the research council.

A2.7.5.4 Do stakeholders hold different opinions on the changes to be made to the funding system?

When it comes to funding, students are very much concerned with the revision of the student support system. They wish to see a return to the scholarships (the universal grants) that were in place until 2015, when they were replaced by loans. The expectation is that some form of universal student grants will be re-introduced, but exactly how this will take place and whether it will affect the funding system is not known yet.²⁴⁴ The public funds (i.e. study advance funds) that were released because of the student support reform of 2015 were transferred to the HEIs and tied to quality agreements. However, students do not always see the quality of their education change and HEIs have not always managed to show where the money went and whether quality had improved.²⁴⁵

Among the HEIs there are differences in opinion about the way in which the funding system should be reformed to provide more stability in funding. There are differences between the somewhat smaller universities and the larger comprehensive universities and the question is how these should be reflected in core grants that are less dependent on student numbers.²⁴⁶

When it comes to a revision of the funding parameters (in particular, the funding rates per student or per degree), there are differences in opinion between the universities of technology and the other universities. Universities of technology would like to see the funding rates for their engineering students raised to a level that is close to that of students in medical programs. However, such a revision would come at the expense of

243 Matching refers to the need for co-financing by universities: The research council programmes are not based on full costs, so they require matching funds from the university's own resources (i.e. core funding), which creates a strain on the university's revenues.

244 Reference to newspaper articles to be included here.

245 See: Algemene Rekenkamer (2018), Voorinvesteringen en medezeggenschap hoger onderwijs. Den Haag: ARK. See: <https://www.rekenkamer.nl/publicaties/rapporten/2018/01/25/voorinvestering-en-medezeggenschap-hoger-onderwijs>

246 See CHEPS report from 2018 quoted above.

other universities – in particular those that have relatively many students in social sciences and humanities.

Opinions on performance agreements differ too between the individual universities and UAS. Some HEIs felt the agreements were a useful instrument to initiate change in their institution and that the agreements helped them put issues on the agenda. Others experienced a reduction in autonomy and felt an increase in bureaucracy (through the mandatory indicators) and stated that the agreements were yet another attempt at New Public Management.

A2.8 Poland

A2.8.1 Overview of the funding system

A2.8.1.1 Poland's higher education funding system in brief

Public and non-public higher education institutions (HEIs) in Poland are financed from budget subsidies, funds from municipal budgets and other public funds, external funds (e.g. from the EU) and own revenues. In recent years, the Act of 20 July, 2018 - Law on Higher Education and Science²⁴⁷ introduced some changes towards performance-based funding (PBF), such as a new form of streaming financing for public HEIs – **a subsidy**. The subsidy (funds for the statutory activities of public universities) replaced the earmarked grant (*dotacja*, funds for the specific purpose) for teaching activities and for maintaining the research potential of the HEI units and consolidated public funds received by public and private HEIs.^{248,249}

There has also been a change in **the financial algorithm** (formula) for allocating the didactic (basic) subsidy, which is the primary source of financing for public HEIs (commonly referred to as the teaching subsidy). A new algorithm is a tool for the Ministry responsible for higher education (HE) to promote specific directions in developing HEIs in Poland.²⁵⁰ Among others, the specific components of the formula and their weights are to encourage the development of: education in specific fields of study (science, science, technology), scientific research and internationalization.²⁵¹ In addition, the method of allocating financial resources places more emphasis on the diverse missions of universities in Poland.²⁵² This means that separate algorithms apply to i) public university-type HEIs (*uczelnia akademicka*); ii) public non-university (vocational) HEIs (*uczelnia zawodowa*); iii) non-public university-type HEIs, institutes of the Polish Academy of Sciences, research institutes and international institutes.²⁵³

The new Act also defined two programmes of the Minister of National Education and Science (MoNES) addressed to university-type HEIs: "**Initiative of Excellence - Research University**", "**Regional Excellence Initiative**", and one project for non-university (vocational) HEIs - "**Teaching Excellence Initiative**". Subsidies for both groups are calculated according to the same algorithm but with different weights for its components.²⁵⁴ The Initiative of Excellence is a large project and ten such research HEIs were selected and received an additional grant/subsidy for obtaining the status of a research institution.²⁵⁵

247 Act of 20 July 2018 The Law on Higher Education and Science, also known as the Constitution for Science or Law 2.0. Available here .

248 Previously, the systems of financing science and higher education functioned separately.

249 Act of 20 July 2018 The Law on Higher Education and Science and EACEA (2021). Higher education financing in Poland. Available here.

250 The algorithm is a formula for calculating what percentage of funds for all HEIs will go to a specific institution. Łukaszewska, K. (2015). Where does the HEI money come from? University of Warsaw. Available here.

251 Łukaszewska, K. (2015). Where does the HEI money come from? University of Warsaw. Available here.

252 The Constitution for Science. Available here.

253 The Constitution for Science. Available here.

254 There are two main types of HEIs in Poland: university-type HEIs (*uczelnia akademicka*) and non-university (vocational) HEIs (*uczelnia zawodowa*). For more, please see Annex 1.

255 Interview with a Key Stakeholder, 17 May 2021.

A2.8.2 How is the funding system structured?

Higher education funding is included in the section of the State budget managed by the minister responsible for higher education and the part ‘Higher education and science’ included in other sections of the State budget. The overall budget allocated for this purpose is specified annually in the Budgetary Act.²⁵⁶ According to the Law on Higher Education and Science, financial resources planned in the state budget for financing higher education and science allocated for a given year cannot be lower than the funds than in the previous financial year planned in the year (subject to annual indexation).²⁵⁷

The Minister responsible for higher education and science distributes funds among HEIs based primarily on the type of HEI: i) public and non-public university-type HEIs (*uczelnia akademicka*) and ii) public and non-public non-university (vocational) HEIs (*uczelnia zawodowa*, please Annex 1 for more information about types of HEIs in Poland). They receive funding in the form of:

- a single subsidy for the maintenance of their teaching and research potential in the case of public academic-type HEIs,
- a subsidy for the maintenance and development of teaching potential in the case of public non-academic HEIs, and
- a subsidy for the maintenance and development of research potential in the case of non-public academic HEIs.

HEIs also receive funds in the form of **targeted grants** for: material support for students and doctoral students; maintenance of scientific and research equipment, a unique research stand, and a special IT infrastructure; tasks related to securing conditions for persons with disabilities for their full participation in the admission and education process; and funds for investments in the form of a targeted subsidy.

The amount of subsidies for the maintenance and development of teaching and research potential, as well as subsidies for student benefits or support for people with disabilities at the university, are calculated based on algorithms (for more, please see below), in accordance with the principles set out in the relevant regulations. In the case of capital investment related to teaching, the funding allocation mechanism is based on the application for a grant by the beneficiary entity (HEI). Finally, HEIs may receive other funds from the State budget (including the structural funds and funds for research) and the budgets of local government units or their associations.²⁵⁸

An overview of HEIs’ funding from 2019 is presented in the figure below.

256 EACEA (2021). Higher education financing in Poland. Available here.

257 Act of 20 July 2018 The Law on Higher Education and Science, also known as the Constitution for Science or Law 2.0. Available here.

258 EACEA (2021). Higher education financing in Poland. Available here.

Table 3. Funding of HEIs in Poland

	PUBLIC HEIs		NON-PUBLIC HEIs	
	UNIVERSITY-TYPE	NON-UNIVERSITY TYPE	UNIVERSITY-TYPE	NON-UNIVERSITY TYPE
Subsidy				
Maintenance and development of didactic potential, incl. Minister's initiatives* for vocational HEIs	●	●		
Maintenance and development of research potential, incl. doctoral school education, Minister's initiatives**	●		●	
Targeted grant: specific-beneficiary grant				
Student benefits	●	●	●	●
Tasks related to the provision of adequate conditions for full participation of disabled persons in the teaching / learning process and research activities	●	●	●	●
Maintenance of research equipment or a research stand unique on a national scale, IT infrastructure maintenance	●			
Targeted grant: specific-purpose grant				
Investments related to education	●	●		
Investments related to science	●		●	

* "Teaching Excellence Initiative"

** "Excellence Initiative - Research University" and "Regional Excellence Initiative"

Source: Supreme Audit Office (2021). Information on the audit results: financing of higher education.

In addition to subsidies in 2019 and 2020, in the funding formula part, the Minister responsible for the budget, on the request of the Minister responsible for higher education and science, could transfer **treasury securities** to a public university to increase the basic fund or to an international scientific institute to increase the statutory fund.²⁵⁹

The most significant share of funding for both teaching and research activities goes to public university-type HEIs. Non-university HEIs do not receive funds for the maintenance and development of research potential and for investments in the area of research.

The main funding allocation mechanism is the algorithm, a formula for calculating what percentage of funds for all HEIs will go to a specific institution.²⁶⁰ In 2019, the formula accounted for 50% of the core funding (teaching and research) in 2020 – 55%. The remainder, 50% and 45%, respectively, is **historical funding** or so-called **transfer rate constant** (*stała przeniesienia*), the same for university and non-university HEIs. It means that approximately half of the subsidy is made up of the grant amount from the previous year. By 2024, the historical funding should be reduced to 25% due to a gradual reduction of the historically determined allocation base. For comparison, according to data from the 2015 EUA report, historical funding 6 years ago amounted to 65% of the previous year's grant received by universities.²⁶¹ In line with the new algorithm, that the amount of new

259 Interviews with Key Stakeholders; EACEA (2021). Higher education financing in Poland. Available [here](#); and Article 310 (1) of the Act of 3 July, 2018 Provisions introducing the Act - Law on Higher Education and Science.

260 Łukaszewska, K. (2015). Where does the HEI money come from? University of Warsaw. Available [here](#).

261 EACEA (2021). Higher education financing in Poland. Available [here](#).

subsidies will be gradually less dependent on the amount of the subsidy granted in the previous year.

The algorithms for dividing the subsidy funds are determined by: i) the Minister responsible for science and higher education for the public HEIs supervised by the Ministry and for non-public academic HEIs, and ii) other ministers - for the HEIs they supervise.

The algorithm for the main subsidy, i.e. for the maintenance and development of teaching and research capacities, is different for public, non-public and vocational (non-university) HEIs:

- the allocation algorithm for university-type HEIs is based on 7 criteria (and weighting): students (0.34), staff (0.25), internationalisation (0.05), research (0.25), doctoral training (0.01), research and development (0.10), and projects (0).²⁶²
- for non-university HEIs, the allocation algorithm is based on four criteria (and weighting): student (0.50), staff (0.40), graduates (0.05), income (0.05).

Under comparable conditions, the subsidy amount calculated according to the algorithm and transferred to public universities and non – university HEIs may not be lower than 98% and higher than 106% of the amount awarded in the previous year. Similarly, if the formula was a subsidy higher than 105% of the previous year, funds up to the level of 105% will be granted.

As for other funding options, the components are as follows:

- *for grants for tasks to provide conditions for full participation of disabled people:* student component, doctoral student component, staff component;
- *for grants for financial benefits for students:* the number of students, the number of students receiving a maintenance grant, the number of students with a disability;
- *for grants for capital investment related to education/training:* the importance of the planned investment for a given HEI, the impact of the planned investment in terms of the safety of its users and a reduction in the operation and maintenance costs of the HEI's facilities, the possibility of attracting co-funding from other sources for the planned work or tasks.

In the case of the latter, the total amount allocated from the State budget for a capital investment project may not be higher than its cost estimate.²⁶³

As for non-public higher education institutions (HEIs), they receive **grants** for tasks related to financial support for students, and tasks related to the provision of conditions for full participation of disabled persons in the learning process and research activity, based on components described above. Non-public university-type HEIs may also receive a subsidy for the maintenance and development of their research capacities. These are based on two criteria defined in the algorithm for 2020: doctoral training (0.14 and 0.70 in 2024) and research activity (0.86), used to distribute 55% of the subsidy. The remaining 45% is based on the so-called transfer rate constant, as in case of public HEIs. Moreover, the algorithm-based subsidy distributed among non-public university-type HEIs may not be lower than 95% and higher than 110% of the subsidy granted in the previous year (with some exceptions concerning types of HEIs).²⁶⁴

Finally, it should be mentioned that the weightings are slightly different for public university-type HEIs supervised by the Minister, with which the Minister has concluded

262 Using the these criteria, 55% of the subsidy was distributed in 2020.

263 EACEA (2021). Higher education financing in Poland. Available [here](#).

264 EACEA (2021). Higher education financing in Poland. Available [here](#); ²⁶⁴ The Constitution for Science: Guide to reform. Available [here](#).

agreements under **'The Excellence Initiative: research higher education institution'** (*Incjatywa doskonałości – uczelnia badawcza*).

The Regulation of the Minister of Science and Higher Education on allocating funds for the maintenance and development of teaching and research potential defines conditions concerning rules for this initiative. In this case, higher weightings are assigned to the doctoral training criterion (0.02) and the project criterion (0.05), and a lower weighting to the student criterion (0.28).²⁶⁵ A university-type HEI can join the competition under the 'Excellence Initiative - Research University' programme, if it inter alia:

i) conducts research in at least 6 disciplines in which the quality of scientific activity has been evaluated, and has the scientific category A + or A in at least half of these disciplines; ii) does not have a B or C scientific category; iii) runs a doctoral school; and iv) does not have a negative programme evaluation.²⁶⁶

In the funding formula part, the financing of universities depends on the category obtained: A and A + categories receive the highest benefits, while C is not entitled to such subsidies. For this reason, universities are intensively preparing to qualify for higher categories (see Annex 1 on types and categories of HEIs).²⁶⁷

A2.8.3 What are the key goals of the funding system?

The overall aim of the recent funding system reform (and the previous reforms) is to strengthen the pro-quality functions of the higher education funding system and make Polish science more competitive in the world.²⁶⁸ It should foster excellence in research and the education of students and doctoral students, as measured by the results of the reformed evaluation of scientific activity,²⁶⁹ and increase the autonomy of leading, successful academic institutions.²⁷⁰

In line with the reform:

- universities have more autonomy in managing funds;
- no need for HEIs to define the spending of financial streams in detail;
- fewer restrictions on subsidy's spending than on a grant;
- more flexible use of workloads, allocation of time and resources for research;
- funds for the maintenance and development of research potential are received by the university, not its basic research units (as it used to be before);
- the funding paths vary depending on the HEI's status.²⁷¹

The reform is to result in a far-reaching concentration in the financing of scientific research.²⁷² The research mission is to be concentrated in centres with the highest scientific achievements through mechanisms of gradual accumulation of funds for research – instead of their constant fragmentation.²⁷³

265 Journal of Laws 2019 item 1838. Available [here](#).

266 Art. 388 sec. 1 Law on higher education and science (Journal of Laws of 2021, item 478). Available [here](#).

267 Interview with a Key Stakeholder, 17 May 2021.

268 Programming Conference of the National Congress of Science on "Financing science and higher education" organized by the Minister of Science and Higher Education on 25–26 May 2017 r. Available [here](#).

269 Newseria (2017). Financing universities according to new rules - pros, cons and directions of changes, commentary by the Deputy Bursar of the University of Lodz. Available [here](#).

270 Programming Conference of the National Congress of Science on "Financing science and higher education" organized by the Minister of Science and Higher Education on 25–26 May 2017 r. Available [here](#).

271 The Constitution for Science. Financial matters: questions and answers. Available [here](#).

272 Newseria (2017). Financing universities according to new rules - pros, cons and directions of changes, commentary by the Deputy Bursar of the University of Lodz. Available [here](#).

273 The Constitution for Science. Financial matters: questions and answers. Available [here](#).

A2.8.4 What is/was the motivation/ rationale for the current (PBF) funding system? (issues it aims to address)

The main rationale behind the funding system reform was mass-scale studying (i.e. all candidates were admitted to studies) and low quality of higher education.²⁷⁴ 'Massification' of education on such a scale, with a small growth of academic staff, was a considerable effort for Polish HEIs. As a result, scientific excellence was compromised as the education of students, including doctoral students, in many fields has been '*dominated by the simplest forms of providing and assessing knowledge, rather than developing the ability to expand and use it*'.²⁷⁵ Reducing the historical funding (carry-over constant/transfer rate) and increasing the share of the complex algorithm were to force universities to divert from this so-called extensive activity (mass, low quality education). This means that historical funding is less important than how much HEIs comply with the preferred standards in this algorithm. Among other things, the SSR ratio (number of students per lecturer) is important and a HEI that has a relatively large number of students and less academic staff is slightly 'penalised' for not achieving quality in this matter.²⁷⁶ After exceeding the SSR, the financing per student does not increase; hence it is not profitable to have more students (this does not apply to paid studies, however).

A demographic decline, confirmed by a gradually decreasing number of part-time students, was also a motivating factor, because the HEI's own revenues were based mainly on tuition fees (e.g. part-time programmes).²⁷⁷

Other, more specific reasons for changes in the funding system related to inefficient spending of public funds are as follows:

- central, rigid regulations defining the use of public funds limiting the functioning of HEIs and their financial autonomy;
- over-regulation of Polish HEIs, partly linked to the Ministry's multiple minor funding streams, each of which implied detailed reporting responsibilities;
- low effectiveness of a research funding system in incentivising research performance;
- the lack of stable funding and poor supervision over how public money is spent, resulting from the lack of a coherent and long-term policy²⁷⁸.

In addition, the career system, including degrees and titles, did not offer sufficient research opportunities to young talents, inhibiting the pursuit of scientists to excellence in conducting interdisciplinary research. Currently, the system of scientific activity evaluation, included in the Act on Higher Education and Science, combines the powers to award doctoral and postdoctoral degrees with the results of the evaluation of the academic activity of HEIs in individual disciplines. This is to improve the efficiency of distributing

274 The proportion of master's degrees awarded in relation to all higher education diplomas is considered too high, compared to international data. Newseria (2017). Financing universities according to new rules - pros, cons and directions of changes, commentary by the Deputy Bursar of the University of Lodz. Available here.

275 Programming Conference of the National Congress of Science on "Financing science and higher education" organized by the Minister of Science and Higher Education on 25–26 May 2017 r. Available here.

276 Interview with a Key Stakeholder, 17 May 2021.

277 Newseria (2017). Financing universities according to new rules - pros, cons and directions of changes, commentary by the Deputy Bursar of the University of Lodz. Available here.

278 Interviews with key stakeholders May 2021; Programming Conference of the National Congress of Science on "Financing science and higher education" organized by the Minister of Science and Higher Education on 25–26 May 2017 r. Available here.

such powers and promote the concentration of research resources, also between universities.²⁷⁹

Finally, from a broader, strategic perspective, changes in financing higher education are a response to the mismatch between the structure of the higher education system and social and economic challenges²⁸⁰ and insufficient level of significance of the results of scientific research conducted in Poland in world science.²⁸¹ While a significant part of Poland's public research, development and innovation capacity, is concentrated outside of the HE sector,²⁸² the ineffective system of supporting the commercialisation of scientific research slows down the growth of innovativeness of the Polish economy²⁸³. The reformed funding system should encourage HEIs to allocate more resources to R&D to avoid the so-called 'average product' trap - one of the five development pitfalls identified in the Responsible Development Plan.²⁸⁴

A2.8.5 Did any major reforms/ changes take place in recent years?

A reform of the higher funding system entered into force in 2019, based on Law on Higher Education and Science of 2018 (as presented in Section 1.2). It introduced changes that are a step towards a performance-based financing system.²⁸⁵

According to the reform assumptions, the new financing model should, among other things, guarantee greater stability (predictability) of funding. To allow this, the rules for financing HEIs should not be changed abruptly and too often.²⁸⁶ However, the Ministry of National Education and Science announced a small amendment to the Law on Higher Education and Science in autumn 2021, and a larger one, in spring 2022.²⁸⁷ Among others, the Ministry announced: i) further significant changes in the list of scoring journals;²⁸⁸ ii) steps towards higher transparency of scientific promotion; and iii) a radical change in the principles of evaluation in 2026. In 2020, the Minister limited the pro-quality mechanism of the subsidy distribution algorithm for public HEIs, in which the amount of

279 Supreme Audit Office (2021). Information on the audit results: financing of higher education. Available here.

280 The Constitution for Science. About the Law. Available here.

281 Programming Conference of the National Congress of Science on "Financing science and higher education" organized by the Minister of Science and Higher Education on 25–26 May 2017 r. Available here.

282 Programming Conference of the National Congress of Science on "Financing science and higher education" organized by the Minister of Science and Higher Education on 25–26 May 2017 r. Available here; Supreme Audit Office (2021). Information on the audit results: financing of higher education. Available here.

283 Supreme Audit Office (2016). NIK on the commercialization of scientific research. Available here.

284 It means that too many companies base their competitiveness on the supply of simple products at the lowest price, and public institutions use the criterion of the lowest price in their procurement. Newseria (2017). Financing universities according to new rules - pros, cons and directions of changes, commentary by the Deputy Bursar of the University of Lodz. Available here.

285 Interview with a Key Stakeholder, 17 May 2021.

286 Newseria (2017). Financing universities according to new rules - pros, cons and directions of changes, commentary by the Deputy Bursar of the University of Lodz. Available here.

287 Fundacja PAP (2021). Czarnek: a small amendment to the Constitution for Science - in the fall; greater - next spring. Available here.

288 Many new journals that do not meet the previously adopted criteria were added to the list, while according to the reform of 2017, the evaluation of scientific achievements was to be carried out according to a complicated algorithm - counting points for publications, mainly foreign and in reputable journals and publishing houses.

subsidies was influenced by specific development indicators (e.g. human resources, research, internationalisation). By deciding to provide universities with funds in the minimum amount specified in § 5 of the regulation in on the distribution of subsidies (i.e. at the level of 98% or 100% of the subsidy of the previous year under comparable conditions), the Minister reduced funding that resulted from the algorithm.²⁸⁹ These changes withdraw some of the changes introduced by the Constitution for Science in 2018 and make it difficult to predict the evaluation rules after 2022.

A2.8.6 Does the (PBF) funding system work?

A2.8.6.1 What are the positive (intended) and negative (unintended) effects of the system in terms of the three missions (education, research, engagement) of higher education institutions?

Academics positively evaluate the system of financing universities through subsidies as it gives them freedom in managing the allocated funds. It can be said that the Act of 2018 rationalised the funding of universities. In the current system, it is not necessary to increase recruitment at any cost, and HEIs can focus on the quality of candidates. Another advantage is recognising the need to increase financial resources in the HE system, which is observed in the annual increase in subsidies transferred to universities. On the other hand, the biggest drawback of changes in higher education are issues related to the evaluation of institutions. It is unknown to what extent the evaluation will be reliable and to what extent it will succumb to various pressures and the temptation of control. Transparency, which has been somewhat lacking so far, will be essential in this respect.²⁹⁰

Box 2: Information on the audit results

Education quality: According to 65% of university-type HEI rectors and 85% of non-university-type HEI rectors, provisions of the new Law on Higher Education and Science (2018) improved the quality of education at universities. The most often mentioned supporting arguments include: increased autonomy of HEIs in organising education; a better adaptation to the number students; didactic staff stabilisation; the establishment of doctoral schools, doctoral scholarships and emphasis on the quality of publications. On the other hand, the rectors who did not notice an improvement pointed out to: no bonuses for HEIs for the quality of education; lecturing by staff with no previous scientific experience; constant improvements made by HEIs regardless of the legal acts.

Research quality: According to 70% of university-type HEI rectors, the new Law on Higher Education and Science from 2018 (the so-called Constitution for Science) contributed to the improvement of the quality of research conducted at HEIs because of: a) increased interest in publishing research results in highly ranked scientific journals and publications; b) more reliable evaluation of scientific activity in disciplines than the previous parameterization of faculties with a differentiated structure; c) flexibility in availability of a subsidy - greater research funding opportunities. According to the rectors who did not notice an improvement: a) researchers focus on gaining points, not on the quality of research and publications; b) evaluation of only four achievements of the best researchers lowered their motivation to scientific activity with no increased funding for such activity.

289 Supreme Audit Office (2016). NIK on the commercialization of scientific research. Available here.

290 Dziennik Gazeta Prawna (2020). Too early to summarize Gowin's reform [DGP DEBATE]. Available here.

Source: Supreme Audit Office (2021). Information on the audit results: financing of higher education.²⁹¹

Universities that introduce mechanisms to improve the quality of education and research, will be able to count on a greater increase in subsidies than it has been so far.²⁹²

Education: The algorithm's new SSR (students-staff ratio) indicator reversed the principle that HEIs that admitted the most students received more. Currently, a large number of students does not mean an increase, but a decrease in subsidies. In this context, the introduction of the new algorithm is criticized by some HEIs. On the other hand, the new algorithm responds to a long-standing academics' postulate to raise the rank of universities by reducing the number of students per a lecturer. This means that students' access to universities, especially the best ones, should be more difficult and require a greater level of knowledge and different skills from candidates. From this point of view, the method of allocating subsidies according to the new algorithm is assessed positively.²⁹³

Research: The introduction of parametric evaluation of scientific units and the 'Initiative of Excellence - Research University' are praised for their positive impulse to increase the competitiveness of universities in Poland.²⁹⁴ The Supreme Audit Office in Poland positively evaluates the initiation and implementation by the Minister of two programmes targeted at academic universities (Initiative of Excellence - Research University, Regional Excellence Initiative) and one intended for vocational universities (Teaching Excellence Initiative).²⁹⁵ As mentioned earlier, from 2020, the algorithm for the winners of the competition 'Excellence Initiatives - Research Universities' is different than other university-type HEIs (a change in the components' weighting) and includes, among others smaller study groups (SSR = 1, not 13) and the research component with a higher weight (0.3, and in the case of other HEIs - 0.25). Thanks to smaller working groups, research universities should increase the quality of education and focus on the appropriate preparation of future scientists.²⁹⁶ However, ministerial requirements and evaluation criteria focused on the quality of scientific research raise some concerns. It is because less emphasis is placed on other positive achievements of universities not necessarily reflected in the publication output, e.g. those related to the implementation of education and other goals in the form of unique activities that might be very important from a regional perspective. As a result, experimental sciences are preferred, which entails specific difficulties for classical universities in promoting humanities and social sciences. Moreover, the distribution of funds is primarily related to research activity and downplays the quality of teaching, which in the long run, may lead to a decrease in this area.²⁹⁷

Engagement: Resignation from the concept of the basic workplace of an academic teacher in the algorithm means that practitioners from the socio-economic environment will be included in the personnel component. This is linked to a higher subsidy amount and a higher level of vocational training. In addition, an important role in determining the subsidies for non-university type HEIs is played by the student career-monitoring index and the relative unemployment rate among graduates. The inclusion of the graduate component is to ensure greater mobilization of vocational HEIs to educate students in

291 Based on a questionnaire survey among rectors of public university-type (n=85) and non-university-type (26) HEIs.

292 The Constitution for Science. Money for HEIs: what does the subsidy depend on. Available here.

293 Newseria (2017). Financing universities according to new rules - pros, cons and directions of changes, commentary by the Deputy Bursar of the University of Lodz. Available here.

294 Dziennik Gazeta Prawna (2020). Too early to summarize Gowin's reform [DGP DEBATE]. Available here.

295 Supreme Audit Office (2016). NIK on the commercialization of scientific research. Available here.

296 The Constitution for Science. Money for HEIs: what does the subsidy depend on. Available here.

297 Dziennik Gazeta Prawna (2020). Too early to summarize Gowin's reform [DGP DEBATE]. Available here.

accordance with the local labor market needs.²⁹⁸ In addition, the ‘Excellence Initiative - Research Universities’ emphasizes the importance of a given type of higher education institution in the sustainable development of the Polish economy, which is important for universities located in smaller cities.²⁹⁹

A2.8.6.2 What are the effects on inclusion, innovation of Teaching & Learning and on transnational collaborations?

There is no robust knowledge whether the PBF has had an effect on inclusion, innovation of T&L. No studies have been conducted on the relationship between these aspects and the core funding mechanisms.

An important point of recent changes in funding of HEIs is internationalization. Until now, internationalization has been a challenge for Polish universities: while it increased in recent years and reached 6.4% in 2019, it is still lower than the average of other OECD countries, which is 8.9%.³⁰⁰ The lack of internationalization and openness to foreign cooperation was identified as a problem that will increase and may lead to the isolation of Polish scientists. Expanding the language competences of students and researchers and openness to grant programs and other forms of international exchanges are thus perceived as necessary to address this challenge.³⁰¹

The new algorithm is intended to encourage greater openness to scientists and students from abroad. The internationalisation of HE is an explicit criterion in the funding formula and it applies to both the participation of international students and employees (the element of three times in this parameter, i.e. if you have a foreign lecturer, it is multiplied by three; for comparison, for a Polish professor it is 2 or 2.5). This so-called ‘Internationalization component’ calculated on the basis of the formula depends, inter alia, on the number of foreign students at the HEI, the number of students receiving scholarships granted by National Agency for Academic Exchange (NAWA), the number of students and doctoral students from foreign HEIs. The purpose of the change was to incentivize international promotion of academic universities and introduce new foreign-language education programmes.³⁰²

A2.8.7 Data collection and performance monitoring

A2.8.7.1 Is there evidence to support the positive/negative effects touched upon in the previous question?

The evidence on the positive/negative effects of the funding system will be available after the evaluation of the quality of scientific activity in 2017-2021, which will start on 1

298 The Constitution for Science. Money for HEIs: what does the subsidy depend on. Available here.

299 The Constitution for Science. Money for HEIs: what does the subsidy depend on. Available here.

300 Supreme Audit Office (2020). EDUCATION OF FOREIGNERS AT POLISH UNIVERSITIES. Available here.

301 The Constitution for Science. Internationalization: an opportunity and a challenge for Polish HEIs. Available here.

302 Supreme Audit Office (2020). EDUCATION OF FOREIGNERS AT POLISH UNIVERSITIES. Available here; Interview with a Key Stakeholder, 17 May 2021.

January, 2022.³⁰³ Based on this evaluation, the Minister, by way of an administrative decision, will award the scientific category of A +, A, B +, B or C, where the A + category is the highest and the C category - the lowest.³⁰⁴ Awarding scientific categories to the disciplines in which a HEI conducts research will be the basis for qualifying HEIs to the group of academic or vocational institutions.³⁰⁵ The categories will also have an impact on the amount of the subsidy.³⁰⁶

The only evidence identified is related to greater share of research staff at HEIs with higher research potential. According to the Supreme Audit Office control in 17 public universities in 2018-2020, in all audited HEIs, the percentage of research staff increased from 3.1% in the 2018/2019 academic year to 4.1% in the 2020/2021 academic year. This could indicate, among others, positive influence of the new funding system on the use of the scientific potential. According to the audit, a high percentage of academic staff employed in a research group coexists with the high academic level of the HEI, confirmed by, for example, by participation in the 'The Excellence Initiative: research higher education institution'. At the same time the control results have revealed that despite the introduced changes and the evaluation of the quality of scientific activity planned for 2022, HEIs have not fully used the opportunities to strengthen research and scientific development. In addition, incorrect distribution of subsidies in 2020 led to i) reduced financing for individual HEIs that would result from the use of the algorithm, and ii) the reduction of the pro-quality mechanisms in the allocation algorithm (i.e. the research component, the internationalization component had a smaller impact on the subsidy than they should).³⁰⁷

A2.8.7.2 How are the effects of the funding system (its impact on performance) monitored?

Financing based on quality forces the monitoring and evaluation of scientific achievements. The first evaluation of the quality of scientific activity that will cover the period when the new financing rules have been applied will start in 2022. It will be carried out under three criteria.³⁰⁸

303 The change of the starting date of the first evaluation from the 1st of January 2021 to the 1st of January 2022 was made in the provisions of Art. 60 point 13 lit. a of the Act of the Special Support Instruments because of the spread of the SARS-CoV-2 virus.

304 Articles 268–269 of Act of July 20, 2018 Law on Higher Education and Science.

305 Supreme Audit Office (2021). Information on the audit results: financing of higher education. Available here.

306 The Constitution for Science. Evaluation. Available here.

307 Supreme Audit Office (2021). Information on the audit results: financing of higher education. Available here.

308 The Constitution for Science. Evaluation. Available here.

Criterion I - scientific or artistic level of the conducted scientific activity	Criterion II - financial results of research and development works	Criterion III - the impact of scientific activity on the functioning of society and economy
<p>The assessment of the scientific level applies to scientific articles (both on the list and off the list), monographs, editing monographs and the authorship of chapters in monographs, and granted patents for inventions.</p>	<p>The financial effects are assessed based on the amount of funds obtained for research projects under competitions organised by EU and foreign institutions, NCBR, NCN and NPRH.³⁰⁹ This criterion will also consider the commercialisation of research or development works, and scientific work commissioned by entities from outside the higher education and science sector.</p>	<p>The impact of scientific activity on the functioning of society and economy is assessed based on descriptions proving the relationship between research and the functioning of administration, health protection, culture, etc. When assessing this criterion, the so-called case-by-case study is considered to measure and evaluate the impact reliably.</p>

The criteria for each group of sciences will have a different weight allowing the assessment of individual disciplines by considering their specificity.³¹⁰ However, as raised by representatives of HEIs, these criteria change during the assessed period and will be changed further in line with the Ministry's announcements.

The Minister responsible for higher education monitors compliance of the activities of HEIs with the law and proper and correct use of public funds. The Rector of each HEI provides the following documents to the planning-and-reporting database in the POL-on system (the national integrated information system for science and higher education): the HEI's activity and financial plans; reports on the implementation of activity and financial plans; reports on the use of subsidies and grants; and annual financial reports of the HEI examined by an audit firm. The range of detailed data, and the procedure and timeframes for inputting, updating, storing and removing data are set out by the Minister in a relevant regulation.³¹¹

A2.8.7.3 What data (which indicators) are collected? (What data is exchanged between HEIs and funding agencies?)

The data necessary for distributing subsidies are collected primarily in the POL-on system (i.e. the Integrated System of Information on Science and Higher Education), and provided by competent institutions. In the case of public university-type HEIs, it includes data on:

- number of students, submitted via the POL-on system on the S-10 forms of the Central Statistical Office;

309 NCBR - National Centre for Research and Development, NCN - National Science Center and NPRH - National Program for the Development of Humanities.

310 The Constitution for Science. Evaluation. Available here.

311 EACEA (2021). Higher education financing in Poland. Available here; 311 The Constitution for Science: Guide to reform. Available here.

- the number of doctoral students, participants of doctoral schools and average employment submitted via the POL-on system on the S-12 forms of the Central Statistical Office;
- the number of students and doctoral students coming to the university and leaving to the university abroad as part of short-term international exchange, the number of non-Polish citizens holding the title of professor or employed as a university professor at another university, foreign university or foreign scientific institution or as an institute professor in PAN institute, research institute or international institute that conducted at least 60 hours of teaching in the previous academic year, as well as the number of projects implemented by IDUB universities in 2020 under the framework program for research and innovation (2014-2020) "HORYZONT 2020", provided via the POL-on system in the supplementary data form to calculate subsidies for 2021;
- the number of students and doctoral students who are not Polish citizens, who completed a full cycle of education in the previous academic year, based on the S-10 and S-12 reports, submitted by universities to the Central Statistical Office via the POL-on system;
- the number of research workers conducting research activity who submitted a declaration authorising the entity employing them to be included in the so-called N numbers, the data comes from the POL-on system;
- expenditure on research and development activities indicated in the PNT-01 / s report - provided by the Central Statistical Office;
- the number of projects implemented by IDUB universities, financed or co-financed by the National Center for Research and Development - provided by the National Center for Research and Development;
- the number of projects implemented by IDUB universities, financed or co-financed by the National Science Center - provided by the National Science Center;
- the number of international students and doctoral students, completing a full cycle of education, receiving a scholarship granted by the Polish National Agency for Academic Exchange or studying based on international agreements or other agreements referred to in art. 2 clause 3 point 1 of the Act of 7 July, 2017 on the Polish National Agency for Academic Exchange.

In the case of public non-university type HEIs, it includes data on:

- number of students, submitted via the POL-on system on the S-10 forms of the Central Statistical Office;
- average employment of graduate over time submitted via the POL-on system on the S-12 forms of the Central Statistical Office,
- financial income - shown by vocational schools in the report on the implementation of the material and financial plan,
- the number of graduates of first-cycle studies at public vocational universities and the relative unemployment rate among graduates of first-cycle studies at public vocational universities from the National System of Monitoring the Economic Fate of University Graduates.

In the case of non-public university-type HEIs, data is collected on:

- the number of workers conducting research activities who submitted a declaration authorising the entity employing them to be included in the so-called N numbers, the data comes from the POL-on system,
- PhD students submitted via the POL-on system on the S-12 forms of the Central Statistical Office.³¹²

312 Written input from the Ministry of Education and Science, 30 June 2021.

A2.8.7.4 Are there plans to revise the data collection to make it more useful for policy-makers and/or to reduce the administrative burden?

The introduction of the new algorithm and the calculation of points requires extensive computerisation of the university. There are many changes required and because of that the introduced systems do not reduce administrative costs. According to interviews with HEI representatives, administrative costs related to the processing of data that are needed for the algorithm were not compensated. However, the National Centre for Research and Development (NCBiR) had certain programmes devoted for this purpose and universities could apply for grants to implement various solutions.³¹³ At the moment, there are no plans to revise the data collection to make it more useful for policy-makers and/or to reduce the administrative burden.

A2.8.8 Funding the EUI

A2.8.8.1 Does the national funding system support the goals of the European Universities Initiative (EUI)?

The funding system reform in Poland supports the goals of the EUI by focusing on: fostering excellence in research and the education of students and doctoral students, incentivising greater innovation capacity of Polish HEIs, and – in a longer-term – contributing to sustainable development.

There are two elements in the funding system that support the goals of EUI: the internationalisation criterion in the funding algorithm (see Section 2.2) and the evaluation criterion for assessing financial results of scientific research and development works (see Section 3.2). In the case of the former, a new element in this algorithm is praising HEIs for international students who undergo an entire course of education (on the other hand, the profitability of foreign exchange students has decreased).³¹⁴ The data collected for the distribution of subsidies includes the number of students and doctoral students coming to the university and leaving to the university abroad as part of short-term international exchange, the number of non-Polish citizens holding the title of professor or employed as a university professor at another university, foreign university or foreign scientific institution. According to the HEI representatives, the relevant component concerning EUI should be included in the algorithm for distributing the subsidies for HEIs from 2022 (e.g. student component or a special general increase in subsidies).

A2.8.8.2 Is there a debate on changing (increasing) the national funding for supporting transnational collaborations between HEIs? (or on changing the criteria for that support? (e.g. w.r.t. conditions, flexibility, time period)

The government's interest in supporting the EUI and its goals was high and there was goodwill and readiness to financially support transnational initiatives that would increase

313 Interview with a Key Stakeholder, 17 May 2021.

314 Cieśliński, J. (2018). The algorithm of financing Polish universities: what it was, what it is, what it should be. University of Białystok. Available here.

international recognition and the participation of Polish universities in European projects. So far, the Ministry of Education and Science granted universities that were allied with the status of a European university (in both editions of the EUI) additional funds in the amount of their own contribution. The Ministry also granted the funds in the amount corresponding to the amounts that the HEI was to obtain from external sources under the Alliance. These amounts were transferred in one instalment at the start of a EUI project, in advance for the entire period. Technically, it was done in the form of a one-off increase in the basic subsidy for HEIs, which means that it does not require settlement and is non-returnable. Apart from this one-off funding for the entire period until the mid-term evaluation, which was considered by HEIs as much needed and beneficial, no other national funding programs or competitions dedicated to universities and activities specifically related to participation in the EUI have been identified. After organising several meetings at which progress in EUA and the needs of Polish universities involved in Alliances were presented the Ministry of Education and Science the topic of supranational initiatives has been off the agenda and there are no details yet how to further support from the Ministry could be achieved.³¹⁵

The HEIs participating in the EUI provide financial support to their Alliance also from their own funds, however, since there are no reporting obligations, obtaining reliable data is complicated. It is expected that student interest may exceed the HEI's capacity once the Alliance develops more. Universities plan to support EUA from their resources, e.g. through implementing project-oriented education, preference for projects with an international component, or bonuses to remuneration for the employees involved in the Alliance.³¹⁶

A2.8.9 Lessons and challenges

A2.8.9.1 What are the main lessons that can be drawn from the past when it comes to the functioning of the (PBF) funding system? What worked particularly well – or not so well?

The changes introduced with the reform that started in 2018 are a step towards a performance-based financing system. With the reform of the higher education system: i) the amount of the subsidy depends on the scientific category obtained: A +, A, B +, B or C; ii) the best research HEIs (excellence) are selected; and iii) funding through research subsidy (results-based) was introduced.

It is too early to judge whether the implementation of this new algorithm leads to an improvement in HEIs performance. Preliminary evidence suggests that **introduced changes favor larger, 'flagship' HEIs with higher research categories and more academic staff.** The largest beneficiaries of the new allocation formula in 2017 are HEIs that have a SRR similar to 'optimal' (i.e. $M = 13$) and numerous units with category A.³¹⁷ At the same time, the algorithm is not a motivating factor for HEIs that received the maximum bonus of 5% (applies to five largest HEIs). For some of them, their surplus in the new

315 Interview with a Key Stakeholder, 26 May 2021.

316 Interview with a Key Stakeholder, 26 May 2021.

317 Lewicki, J. (2018). A new algorithm for distributing the basic subsidy for academic universities. First effects of changes and preliminary conclusions. *Science and Higher Education*, (2 (52), 171-187.

algorithm is so high that they should achieve a constant growth of 5% in the upcoming without special improvement of their indicators.³¹⁸

At the same time, **the so-called ‘adjective’ universities** (e.g. economic, pedagogical) **faced a decrease in the amount of subsidies, because they educate more massively** and they do not have faculties with a better student-staff ratio (as university type HEIs), which ‘softens’ the overall value of the staff availability ratio. For instance, the group of the most loss-making HEIs (-5%) included, HEIs with a very unfavorable SSR from the point of view of the reference parameter adopted by the law.³¹⁹

At the moment, the dominant effect of the algorithm is ‘stopping the pursuit of the student’ and in this respect the algorithm should be effective. The statistical data show that in 2017 all HEIs with an excess of students implemented the ‘survival strategy’ quite effectively, reducing the number of students. At the same time, the audit of the Supreme Audit Office revealed the difficulties faced by HEIs in developing their own development strategies (other than ‘survival’), as required by the provisions of the Act on Higher Education from 2018.³²⁰

A summary of main findings from the Supreme Audit Office’s audit of the financing of HE system after changes are presented in a table below.

Table 4. Key findings from the Supreme Audit Office audit results of the financing of HE systems after changes introduced in 2019

Achievements	Shortcomings
<ul style="list-style-type: none"> • Increasing autonomy of universities • Possibility of dividing subsidy funds at the level of the entire HEI • Stability of HEIs’ funding • Optimization of human resources and development policy • Introduction of the ‘Initiative of Excellence - Research University’ and ‘Teaching Excellence Initiative’ • Greater share of research staff in HEIs with higher research potential • Establishment of doctoral schools, doctoral scholarships, emphasis on the quality of publications. 	<ul style="list-style-type: none"> • Lack of risk analysis despite significant changes in the financing system of HE sector • Lack of analysis of the university's financial situation when dividing treasury securities • Delayed verification of data on the financial situation of HEIs • Unreliable increase in subsidies for four universities (decisions without justification); • Failure to define the target structure of higher education after the process of evaluating scientific activity.

318 Cieśliński J.L., Różycki E.F. (2017). The influence of the main elements of the new algorithm on the basic subsidy for Polish academic universities. "Nauka" 2017, No. 4, pp. 109-128. Available here.

319 Lewicki, J. (2018). A new algorithm for distributing the basic subsidy for academic universities. First effects of changes and preliminary conclusions. Science and Higher Education, (2 (52), 171-187; Opinion of representatives of the Conference of Rectors of Academic Schools in Poland cited in: Lewicki, J. (2018). New algorithm for distributing the basic subsidy. IRSW. Available here; Interview with a Key Stakeholder, 17 May 2021; Cieśliński, J. (2018). The algorithm of financing Polish universities: what it was, what it is, what it should be. University of Białystok. Available here.

320 Cieśliński, J. (2018). The algorithm of financing Polish universities: what it was, what it is, what it should be. University of Białystok. Available here; and Supreme Audit Office (2021). Information on the audit results: financing of higher education. Available here.

Source: Supreme Audit Office (2021). Information on the audit results: financing of higher education.

A2.8.9.2 What are the perceptions of the key stakeholders on the main challenges?

According to key stakeholders, the main challenges related to the implementation of the new rules for financing HEIs include³²¹:

- moving away from the financing based on performance (limiting pro-quality mechanism of the algorithm) towards financing under the old rules, based on one-off decisions of the Ministry;
- frequent and less transparent changes to already established distribution of subsidies;
- no sufficient mechanism to reward universities for the quality of education in the subsidy allocation algorithm;
- distribution of funds, primarily related to research activity, that ignores the quality of teaching (no correlation between the quality of teaching and the level of research);
- evaluation of HEIs according to constantly changing and operating retroactively rules;
- awarding scientific categories once every four years, which limits the HEIs's ability to operate in order to improve the results in the algorithm.³²²
-

A2.8.9.3 What other policies and initiatives can be held responsible for the (non)-performance of the system? How do they work as incentives?

Academics agree that it is too early to unambiguously summarise the reform, especially since the focus last years was primarily on adjusting to the pandemic context. The reform launched processes, the effects of which can be assessed over a more extended period of time. According to the academics, there are solutions that are good and expected by the community, but there are also many inconsistencies and solutions that are often contrary to the spirit of the Act of 2018. Among the main concern is lack of stability, i.e. changing the rules already after two years disorients the HEIs.³²³

A2.8.9.4 Do stakeholders hold different opinions on the changes to be made to the funding system?

The opinions about implemented and planned changes to the higher education financing system vary depending on the impact of the new algorithm on individual HEIs. Soon after

321 A summary from sources: Dziennik Gazeta Prawna (2020). Too early to summarize Gowin's reform [DGP DEBATE]. Available here; Interview with a Key Stakeholder, 17 May 2021; Supreme Audit Office (2021). Information on the audit results: financing of higher education. Available here; Newseria (2017). Financing universities according to new rules - pros, cons and directions of changes, commentary by the Deputy Bursar of the University of Lodz. Available here.

322 This does not apply to research HEIs as high-quality education integrated with research has become part of a six-year agreement between the university and the Ministry. Dziennik Gazeta Prawna (2020). Too early to summarize Gowin's reform [DGP DEBATE]. Available here.

323 Dziennik Gazeta Prawna (2020). Too early to summarize Gowin's reform [DGP DEBATE]. Available here; Academic Forum (2021). Algorithmic try-ons. Available here; Interview with a Key Stakeholder, 17 May 2021.

the new funding allocation formula was implemented, it appeared that the increase in subsidies for university-type HEIs almost entirely went to the five largest HEIs in Poland (out of 69 financed). Among the remaining HEIs, there were some that gained, but as many as 40 universities notified losses (despite the global increase in subsidies), and almost half of them (19) recorded maximum drops (i.e. 5%).³²⁴ For instance, economic HEIs currently have the highest SSR exceedance rates and they would lose the most in the subsidy if it was calculated according to the algorithm.³²⁵ However, voices calling for abandoning the algorithm altogether appear sporadically, also in the academic community.³²⁶ In addition to suggestions mentioned below, the financing of universities could be carried out to a greater extent with the use of grants for projects obtained through open competitions organized by the National Science Centre (Narodowe Centrum Nauki – NCN) should be considered (along with a considerable increase in the NCN's budget).³²⁷

The Ministry of Education and Science is making the first attempts to introduce changes in the algorithm to give it a more stabilising function. As the main reasons the Ministry cites the need to reduce the negative effects of exceeding the recommended SSR level. Some of the proposed changes include:

- increasing the fixed transfer rate constant (it was planned to decrease from year to year);
- mitigating the impact of the decline in the function of the didactic accessibility indicator, after exceeding the nominal value of the ratio of the number of students to the number of academic teachers (SSR),
- flattening the scale of research cost-effectiveness coefficients,
- increasing the impact of the scientific category,
- removal of a project component.³²⁸

Positive opinions on the subsidy distributing method according to the new algorithm concern its influence on the reduction of the number of students per teacher. In this sense, it responds to the long-standing academics' postulate to raise the rank of HEIs by hindering access to them and increasing the requirements for candidates. From this perspective, the proposal to change the algorithm aroused criticism due to the plan to depart from the strict, pro-quality (though strongly differentiating) currently used algorithm. Some academics are concerned about the further dilution of the algorithm's pro-quality structure, which may be demotivating and, consequently, lead to stagnation rather than stabilization of the development of the higher education system.³²⁹

On the other hand, some academics believe that the current pro-quality structure of the algorithm is ostensive and may turn out to be harmful in the future. This group opts for a change in the funding algorithm towards greater predictability and maintaining the status quo with a fixed rate of annual growth. As an example, they indicate a large number of research HEIs, which practically closes the possibility of competing among all HEIs as the differences after six years will be hard to eliminate. Moreover, research HEIs do not compete with each other, because regardless of their results, they all receive an additional

324 Cieśliński J.L., Różycki E.F. (2017). The influence of the main elements of the new algorithm on the basic subsidy for Polish academic universities. "Nauka" 2017, No. 4, pp. 109-128. Available here.

325 Academic Forum (2021). Algorithmic try-ons. Available here.

326 Giza, A. (2021). Modernizing HEIs. Polish HEIs after 1989. Open Eyes Economy Summit on 16-17 November 2021. Available here.

327 Supreme Audit Office (2021). Information on the audit results: financing of higher education. Available here; Lewicki, J. (2018). A new algorithm for distributing the basic subsidy for academic universities. First effects of changes and preliminary conclusions. *Science and Higher Education*, (2 (52), 171-187.

328 Academic Forum (2021). Algorithmic try-ons. Available here.

329 Academic Forum (2021). Algorithmic try-ons. Available here.

10% of subsidies. This means that the new algorithm is said to be not very motivating for the best HEIs. The opinions whether it is more motivating for smaller and medium-sized HEIs are divided. According to some, there are no possibilities of being promoted to the research group. In addition, when the subsidy drops by 2% every year, it is difficult to introduce new solutions at HEIs and generate progress in the scientific activity quality. According to others, if despite current challenges the smaller HEIs manage to operate during the first few years of the new algorithm's operation, its further effects should be positive for them (a lot depends on efficient management and the use of the possibilities inherent in the algorithm).³³⁰

List of sources

A2.8.9.5 Key Stakeholders³³¹

The University of Warsaw, 4 November 2021, and written input on 28 May 2021

The General Council for Higher Education, 17 May 2021

The Silesian University of Technology, 26 May 2021

The Ministry of Education and Science, Department of Innovation and Development, written input on 30 June 2021

A2.8.9.6 Legal Acts

The Act of 20 July 2018 The Law on Higher Education and Science. Available [here](#)

The Act of 3 July, 2018 Provisions introducing the Act - Law on Higher Education and Science

Journal of Laws 2019 item 1838. Available [here](#).

A2.8.9.7 Other sources

- Academic Forum (2021). Algorithmic try-ons. Available [here](#)
- Cieśliński, J. (2018). The algorithm of financing Polish universities: what it was, what it is, what it should be. University of Białystok. Available [here](#)
- Cieśliński J.L., Różycki E.F. (2017). The influence of the main elements of the new algorithm on the basic subsidy for Polish academic universities. "Nauka" 2017, No. 4, pp. 109-128. Available [here](#)
- The Constitution for Science. Available [here](#)
- The Constitution for Science. About the Law. Available [here](#)
- The Constitution for Science. Evaluation. Available [here](#)
- The Constitution for Science. Financial matters: questions and answers. Available [here](#)
- The Constitution for Science: Guide to reform. Available [here](#)

330 Academic Forum (2021). Algorithmic try-ons. Available [here](#); Cieśliński J.L., Różycki E.F. (2017). The influence of the main elements of the new algorithm on the basic subsidy for Polish academic universities. "Nauka" 2017, No. 4, pp. 109-128. Available [here](#).

331 Some Key Stakeholders interviewed are also representatives of the Conference of Rectors of Academic Schools in Poland (CRASP).

- The Constitution for Science. Internationalization: an opportunity and a challenge for Polish HEIs. Available [here](#)
- The Constitution for Science. Money for HEIs: what does the subsidy depend on. Available [here](#)
- Dziennik Gazeta Prawna (2020). Too early to summarize Gowin's reform [DGP DEBATE]. Available [here](#)
- EACEA (2021). Higher education financing in Poland. Available [here](#)
- Eurydice (2020). Poland. Types of Higher Education Institutions. Available [here](#)
- Fundacja PAP (2021). Czarnek: a small amendment to the Constitution for Science - in the fall; greater - next spring. Available [here](#)
- Giza, A. (2021). Modernizing HEIs. Polish HEIs after 1989. Open Eyes Economy Summit on 16-17 November 2021. Available [here](#)
- Lewicki, J. (2018). A new algorithm for distributing the basic subsidy for academic universities. First effects of changes and preliminary conclusions. *Science and Higher Education*, (2 (52), 171-187.
- Lewicki, J. (2018). New algorithm for distributing the basic subsidy. IRSW. Available [here](#)
- Łukaszewska, K. (2015). Where does the HEI money come from? University of Warsaw. Available [here](#)
- Newseria (2017). Financing universities according to new rules - pros, cons and directions of changes, commentary by the Deputy Bursar of the University of Lodz. Available [here](#)
- PROGRAMMING CONFERENCE of the NATIONAL CONGRESS OF SCIENCE on "Financing science and higher education" organized by the Minister of Science and Higher Education on 25–26 May 2017 r. Available [here](#)
- Supreme Audit Office (2021). Information on the audit results: financing of higher education. Available [here](#)
- Supreme Audit Office (2020). EDUCATION OF FOREIGNERS AT POLISH UNIVERSITIES. Available [here](#)
- Supreme Audit Office (2016). NIK on the commercialization of scientific research. Available [here](#)

A2.8.10 Appendix 1 Types of HEIs in Poland

There are two main types of HEIs in Poland: university-type HEIs (*uczelnia akademicka*) and non-university (vocational) HEIs (*uczelnia zawodowa*).

A university-type HEI is an institution that conducts research activity and has the A+, A or B+ research rating in at least one discipline of science or arts (ratings are awarded based on an external evaluation of the quality of research). It may provide first-cycle programmes leading to a Bachelor's degree (*licencjat or inżynier*) (ISCED 6), second-cycle and/or long-cycle programmes leading to a Master's degree (*magister*) (ISCED 7), and doctoral education/training (ISCED 8).

A non-university HEI is an institution that offers programmes responding to the needs of the socio-economic environment and does not fulfil the criteria for a university-type HEI. It provides first-cycle programmes and may also provide second- and/or long-cycle programmes. This type of institution also includes HEIs earlier classified as schools of higher professional education (*wyższa szkoła zawodowa*), which are authorised to provide only first-cycle programmes. Non-university HEIs offer only practically oriented programmes.

Additionally, Law on Higher Education and Science (*Ustawa – Prawo o szkolnictwie wyższym i nauce*) lays down requirements concerning names of HEIs. The term ‘academy’ is reserved for university-type HEIs; the term ‘technical university’ / ‘university of technology’ for university-type HEIs which have the A+, A or B+ research rating in at least 2 disciplines of engineering and technology sciences; and the term ‘university’ for university-type HEIs which have the A+, A or B+ research rating in at least 6 disciplines of sciences or arts (hereafter referred to as disciplines) included in at least 3 fields of science or arts (hereafter referred to as fields). In order to be authorised to provide first-, second- and/or long-cycle programmes, both university-type and non-university HEIs are required to comply with identical requirements set out in the Regulation of the Minister of Science and Higher Education of 27 September 2018 on degree programmes (*Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 27 września 2018 r. w sprawie studiów*).³³²

At the beginning of the 2020/2021 academic year, there were 131 public HEIs in Poland, of which 34 were non-university (vocational) HEIs, and 97 – university-type HEIs. The largest number of universities (93) was supervised by the Minister of Education and Science. The number of public HEIs, compared to the 2018/2019 academic year, decreased by one, as a result of the merger of a vocational HEI with an university-type HEI.³³³

332 Eurydice (2020). Poland. Types of Higher Education Institutions. Available here.

333 Supreme Audit Office (2021). Information on the audit results: financing of higher education. Available here.

Annex 3 Introduction to the case studies of the European University Alliances

Presentation of the case studies

Two European Alliances from the first round (2020-2022) have been selected, in consultation with the European Commission, to describe and explore their funding base, now and in the near future. They are:

- 1. The European University for Smart Urban Coastal Sustainability: EU-CONEXUS**
- 2. The European Consortium of Innovative Universities: the ECIU University**

The main aims of these two case studies are to explore 1) how they are currently funded; 2) how and to what extent national governments financially support the Alliances; 3) how differences in national contributions affect the progress of the formation of the Alliances, their day-to-day operation, and the collaboration between their members; and 4) the plans and options for the future funding of the Alliances (their financial viability). Thus, these case studies focus explicitly on the funding of the Alliances and do not aim to assess the progress or the achievements of the Alliance.

The selection of only two case studies (out of seventeen Alliances that were eligible for European funding in the first round) leads to limitations in generalising the results, because the seventeen Alliances differ in many ways (e.g. in size, missions, ambitions and organisation). To put our case study results in perspective, we used a light-touch comparison with some basic features of some other Alliances from the first round. For this comparison, we have consulted the FOR-EU platform. Moreover, we discussed our preliminary findings regarding the two case studies in an expert webinar on 3 December 2021.

The information for the case studies was gathered by studying documents (including the financial sections of the 2021 Progress reports of the two Alliances), the websites of the two Alliances³³⁴, various interviews with stakeholders of the participating universities (mainly managers) for which an interview protocol was drawn up, and email exchange with stakeholders. The case studies were submitted to the two Alliances for feedback prior to publication and were approved.

The two case studies are structured as follows. First, we will present an overview of the Alliance (mission, objectives and its members). Next, we will explore the current funding system of the Alliance (financial management, funding sources from different levels, and (potential) obstacles regarding their financial management). Finally, we will address the Alliances' financial sustainability (future funding options).

334 EU-CONEXUS and ECIU University

A3.1 CASE STUDY #1: EU-CONEXUS

A3.1.1 Overview of the Alliance

The Alliance “European University of Smart Urban Coastal Sustainability” (EU-CONEXUS) was set up in 2019 and offers transnational and multidisciplinary teaching and research on various topics connected to urban coastal environments while considering the ongoing social, economic, technical and environmental challenges. It also focuses on tackling climate change, energy, tourism, fisheries, and associated topics.

EU-CONEXUS has six members from six Member States, three associate members from three Member States and a number of social partners. The six members are:

- La Rochelle University (LRUniv, France) (the Alliance coordinator),
- Agricultural University of Athens (AUA, Greece),
- Technical University of Civil Engineering Bucharest (UTCB, Romania),
- Klaipeda University (KU, Lithuania),
- Catholic University of Valencia (UCV, Spain) and
- University of Zadar (UNIZD, Croatia).

The associated members are the Waterford Institute of Technology (Ireland), the University of Rostock (Germany) and the Frederick University (Cyprus). Moreover, EU-CONEXUS has a number of social partners, such as municipalities, NGOs, technological centres or ports across nine Member States.

EU-CONEXUS is led by a Governing Board, consisting of ten people, including the presidents or vice-presidents of the member institutions. During the first three initial years of the Alliance, the Governing Board is being chaired by La Rochelle University. Thereafter, the Governing Board will be chaired by one of the presidents of the partner institutions for a two-year period (rotating system). The other main governing bodies of this Alliance are a joint Management Board, a Student Board, a joint Academic Council and Programme Committees for the academic development of EU-CONEXUS, a Research Council, a Financial and Administrative Council, and an External Advisory Board including stakeholders from public and private entities (e.g. associated and international partners).

According to the EU-CONEXUS director, the Alliance was formed with a clear thematic framework initiated by the coordinator (La Rochelle University), based on their vision and objectives. Partners for this Alliance were selected on the basis of their specific expertise in smart urban coastal sustainability. Some of them were contacted as a result of previous cooperation in this area of expertise. The partners have a similar approach and focus to their study programmes and research. The Alliance gave them the opportunity to act together and to strengthen their activities (e.g. increased internationalisation). Cooperation among the partners is working well, as all of them are highly motivated and focused on achieving the Alliance’s aims and objectives. This was stressed by all of the interviewees.

A3.1.1.1 Objectives and achievements

As expressed in their mission statement, EU-CONEXUS aims to establish a unique transnational institution that contains research and teaching on smart urban coastal development from a global point of view³³⁵. The main objectives revolve primarily around the creation of new study programmes and research lines. This includes amongst other things: the provision of common European degrees and diplomas; a 50% mobility of students and academic personnel; and the creation of a higher education inter-university 'campus' (an international body with a legal personality relying on a common governing structure and a common budget)³³⁶. EU-CONEXUS focuses among other things on developing a new joint study approach, including study programmes at the bachelor, master, and PhD level, and summer and winter schools. EU-CONEXUS also focuses on supporting joint academic research, the creation of a smart university campus and common digital libraries³³⁷.

These objectives are in line with the respective objectives of each partner university. Interviewees especially stressed the commonality of objectives such as internationalisation, mobility, having more informed European citizens and building an active student community that takes part in the thematic area of sustainability. Moreover, the international competitiveness of the university, attracting students from abroad, as well as increased visibility are seen as important.

According to the interviewees, so far the cooperation has been successful in achieving its aims, despite the Covid pandemic and the fact that the Alliance was founded only recently. The partners of EU-CONEXUS are proud of a number of achievements, such as:

The establishment of two international joint minor programmes (study programmes at the bachelor level).

The establishment of a joint Master study programme, starting in September 2022. Moreover, EU-CONEXUS has applied for Erasmus Mundus joint programmes, which has been recently accepted for funding and which will help financing this programme.

Increased cooperation between researchers across borders.

Blurring boundaries between technical, social, and other sciences as the result of the Alliance's thematic objective that requires the input from different science disciplines.

Increased visibility of the institutions.

System-level changes. Accreditation rules have been successfully challenged in a number of countries in connection with the establishment of joint study programmes.

³³⁵ EU-CONEXUS Mission Statement: https://www.EU-CONEXUS.eu/wp-content/uploads/2020/03/Mission-Statement_VF.pdf

³³⁶ EU-CONEXUS Mission and Vision: <https://www.EU-CONEXUS.eu/en/home/about-us/mission-and-vision/>

³³⁷ About us: <https://www.EU-CONEXUS.eu/en/home/about-us/european-universities-initiative/>

A3.1.2 Funding for the Alliance

The Alliance's income consists of three streams: European subsidies, targeted contributions from national governments and contributions from the partner universities. Funding from the regional or municipality level is marginal and there are hardly any private contributions.³³⁸ We describe these three streams below.

A3.1.2.1 European level funding

- **Erasmus+ European Universities**
EU-CONEXUS received m€ 4,5 for the period of 1 September 2019 – 31 August 2022. The grant has been divided between the partners according to their contribution to the Alliance Work Packages, with the La Rochelle University receiving the biggest share for being the Alliance coordinator. Contributions vary per institution from m€ 1,3 (coordinator) to k€ 467.
- **Horizon 2020**
EU-CONEXUS received Horizon 2020 funding for their project “EU-CONEXUS-Research for Society” for the period of 1 March 2021 – 24 February 2024. The contribution is in total almost m€ 2, distributed among the universities with a minimum of k€ 257 and a maximum of k€ 496.
- **Erasmus+ strategic partnership**
EU-CONEXUS also received two Erasmus+ strategic partnerships:
 - One on Civic Engagement, in total k€ 249, varying per university from k€ 22 to k€ 69;
 - And one on Strategic partnership on Sport Handicap and Inclusivity Experience, in total k€ 191 (distribution per beneficiary not available yet)
- **Erasmus Mundus**
Erasmus Mundus joint Master programme in Marine Biotechnology, in total m€ 5,2.
- Moreover, proposals have been submitted to other EU programmes (awaiting results) such as:
 - COST action on biological sciences with 3 EU-CONEXUS partners, one COST action in the field of sport sciences involving 3 partners
 - H2020 Green Deal proposal “Terraqua” with the 6+3 full and associated partners participating
 - RISE project on aquaculture involving the 6 full partners.

A3.1.3 National level funding

In addition to the European level, all the Alliance members were granted targeted funds from their respective national governments. The amount of targeted national funding differs significantly per country. The budget in the original proposal did not include such national level funding. Therefore, these national funds are being used as a “bonus budget”

³³⁸ A municipality has for example made available modest financial resources for organising joint activities involving both the Alliance university and the municipality.

for different purposes, such as financing additional Alliance activities or (partially) compensating for the 20% mandatory co-financing of some universities. We explain the national financial contributions per country in further detail below.

A3.1.3.1 France

The French national government has been the most generous in financially supporting its Alliance universities compared to the other countries. The French Ministry of Higher Education, Research and Innovation supports all the French universities that are taking part at the European Universities Initiative through a funding programme called "Investments for the future program" (*Le Programme d'investissements d'avenir (PIA)*). The PIA programme was launched in 2010 by the French government and is being managed by the French research agency. So far, this voluminous programme has invested almost € 80 billion³³⁹. To stimulate employment, strengthen productivity and increase the competitiveness of French companies a number of calls, usually very selective with a large budget, have been launched. One of the calls was specifically targeted at the European Universities. This budget to encourage the French participation in European Universities is non-competitive (meaning that all European University applicants have been rewarded), as long as the total budget available for this call is not exceeded and that the applying university provides all the required documents. The French applied the principle of 'matching in full the Erasmus+ grant', one French euro for every EU euro. The EU-CONEXUS coordinator for example received m€ 1,5 via this programme. The use of the awarded subsidy is rather flexible ('no strings attached') and there can be modifications in the funding usage upon mutual agreement.

A3.1.3.2 Greece

Since the start of the project, there has been an intensive communication of the Greek partner of the Alliance (AUA) with the Greek Ministry of Education, Research and Religious Affairs to secure national funding. According to the interviewee from the AUA, the discussions started in the fall of 2019, and it took about a year and a half to persuade the Ministry to support the Alliance with targeted national funding. This targeted national funding is based on the 20% co-funding of the partner university. Once the partner university's proposal (including final budget, grant agreement, work packages and deliverables) is approved by the Ministry, the university received k€ 187 (for two years). A potential continuation of targeted national funding is under discussion. The AUA plans to use these targeted national funds especially for digitalisation (e.g. for the support of online and hybrid meetings and teaching).

A3.1.3.3 Croatia

The Croatian Ministry for Sciences and Education supports all Croatian partner universities of European Alliances with funding in the amount of k€ 33 per year. The funding is 'automatic' but at the end of the year the university has to submit a report and to justify costs (accountability requirement). Eligible costs are all additional activities connected to the implementation of the Alliance work packages and its development, which are not sufficiently financed by the EU funding.

³³⁹ <https://anr.fr/fr/investissements-davenir/les-investissements-davenir/>

A3.1.3.4 Lithuania

In 2019, Klaipeda University received funding in the amount of k€ 110 from the Ministry of Education, Science and Sport. The funding is allocated for activities that are not financially supported by the EU funding. Klaipeda University partially used the national subsidy for the mandatory 20% partner contribution. Moreover, part of the funding was used for developing the EU-CONEXUS website. In 2020, the new Lithuanian Government promised € 2 million to each university that is part of a European Alliance. There is a high probability they will receive it as the money is already allocated for this purpose. Klaipeda University aims to invest these 2 million in hiring researchers, in improving the quality of education, and in the IT infrastructure (digitalisation of education).

In addition to this national funding, the Klaipeda University is in touch with the municipality to discuss future joint events, activities, and projects with possible financial sponsorship of the municipality.

A3.1.3.5 Romania

The Ministry of National education supports its universities that are part of European Universities through rather generous amounts of special funding. Every Romanian university that is part of a European Alliance will autonomically receive funding from the ministry. It is part of the basic operational grant of these universities. The Technical University of Civil Engineering Bucharest (UTCb) received the same amount of funding that it received from the Alliance, a total of k€ 400 per year. The funding will be used to contribute to the realisation of the Alliance's objectives, in particular for the further digitalisation of the university and the building of conference rooms that would allow hybrid or virtual conferences.

The universities did not have to submit an application to receive the grant and the money can be transferred to the following year if not used. For example, the UTCb has not used all the money in 2021 due to Covid pandemic and the resulting halt of international mobility, but they were allowed to transfer it to next year.

A3.1.3.6 Spain

The Spanish Government has been supportive of the European Universities since the launch of this initiative. The Spanish Minister decided to grant a lump sum to all universities participating in a European Alliance, distinguishing between two categories. Spanish universities with a coordinating role in an Alliance have been allocated k€ 279 and other universities k€ 223. UCV, the Spanish partner university in EU-CONEXUS, received k€223. In addition, there was a small compensation for costs for writing the proposal (k€ 2). The implementation of allocating the funding is in the hands of the Spanish national Agency for the Erasmus+ programme.

The lump sum implies that hardly any strings were attached, the partner university is free to use the money as long as the expenses are in line with the EU-CONEXUS objectives and activities. In the case of the UCV, they are allowed to use them for the obligatory 20% co-funding of the EU funds.

There is no other national or regional funding. There have been discussions with the regional government to support specific events, but at the end of the day due to the Covid pandemic, no such support was granted. Currently there are no future plans regarding funding. There are also ongoing discussions with the European Parliament office in Spain

that might offer small grants to support dissemination for school contests and establish some prizes for the winners.

A3.1.3.7 Institutional level funding

The own contribution of the Alliance member universities consists of the obligatory 20% co-funding of the part that an institution receives from the EU Erasmus+ grant. As the contribution of the members to the Alliance varies, the EU grant share also varies per institution and consequently also the university's own contribution. The partners' own contributions vary from a minimum of k€ 117 to a maximum of k€ 330.

Next to this 20% obligatory co-funding, the partner universities contribute also 'in kind' such as through engagement of permanent staff, use of communication tools, administrative support and use of infrastructures (e.g. offices and labs). The volume of 'in kind' contributions is unknown.

A3.1.4 Assessment of funding received

The Alliance functions through a hierarchical structure that makes sure that the costs and benefits of the Alliance are assured, as the EU-CONEXUS director declared. EU-CONEXUS has a Financial and Administrative Council that consists of six people who are meeting regularly. Every six months, they prepare a financial report in which they specifically analyse past and future spending. All the spending is controlled, all expenses must be validated and there is an active communication with local project officers. In addition, every three months, a progress report is prepared that includes the spending of the Alliance. The Governing Board of EU-CONEXUS is informed about all the financial matters.

With the Covid pandemic and evolution of the project, there has been number of budget changes. For example, mobility trips were not undertaken while some additional investment to technical infrastructure due to higher usage of virtual teaching was needed. It is difficult to ensure the balance between costs and benefits, but according to the EU-CONEXUS director, with careful planning, the postponement of some investments and motivation of the people in the project, most of the time these challenges were successfully tackled. Several interviewees specifically mentioned the importance of national funding as being a crucial help in resolving such unforeseen changes in the project.

A3.1.4.1 Differences in national funding and rules for spending

There are substantial differences in targeted national funding for the Alliance, in the amount received as well as in the rules for the usage of such funds, as we will describe below. When the Alliance applied for the EU funding, they did not have any national funding secured. All the national funding was allocated after winning the EU-CONEXUS project. For this reason, there were in the beginning of the project no plans to use national subsidies and no common approach or Alliance policy. Each partner was 'free' to use the resources awarded by their national governments, which therefore was considered to be a bonus for EU-CONEXUS activities.

According to interviewees, the different amounts of funding do not interfere in a negative way with the work of the Alliance. On the contrary, they argue that targeted national supports benefit the Alliance as a whole. According to one of the interviewees, the

partners well understand the difficulties of obtaining national funding, therefore they support each other. There is a high level of solidarity; there is support for members that have lower national funding. Moreover, it has been advantageous that the coordinating university resides in the country with a generous national funding scheme for European universities.

Although there is a mutual support, possible (financial) transfers within the Alliance are rather low due to national regulations, which can lead to some difficulties or rather inequalities. For example, one interviewee mentioned that the French university can offer outgoing mobile students a € 500 top-up for their Erasmus+ grant, which has resulted in significant increase in outwards mobility. However, another partner university is not allowed to financially support incoming students, the number of students from abroad is therefore stagnating.

The interviewees stressed that instead of the differences in the amount of targeted national funding, the national or institutional rules on funding cause some problems, since these national and institutional rules differ significantly across countries. For example, different salary levels across EU-CONEXUS member universities make it difficult to attract employees or researchers. Or the Alliance wants to organise an event but some of the partners cannot participate due to different financial rules. Or, due to national rules, partner universities are barred from supporting specific EU-CONEXUS activities. An example of the latter concerns students from associated partners. Several but not all members were able to provide financial support to students from associated partners (who themselves do not qualify for Alliance funding) in a form of scholarship.

A3.1.5 The future of the Alliance

The EU-CONEXUS Alliance has been working on ways to ensure its financial sustainability since March 2020 when the sustainability working group started meeting regularly. Since then, there are ongoing discussions and regular meetings on the possible ways to ensure continuation of the Alliance. The box below presents the ideas of the Alliance regarding its future organisational structure, its future financial sustainability and associated activities.

Box 1: Sustainability of EU-CONEXUS

Sustainability for EU-CONEXUS beyond the pilot period is not only related to methods of increasing financial income to support ongoing and future activities, but also to how the Alliance functions across the following core sectors of activity: organisational structure (governance), educational offer, research, partnerships, outreach, and economic model (financial aspects will be incorporated in every sector analysis). The Sustainability Strategy will ensure that the EU-CONEXUS organisational and governance structures are sound, that decision making is transparent, and that activities constantly adapt to the needs of target groups and users. It was agreed that strategic objectives and deliverables will incorporate both the sustainability strategy and the funding strategy.

The type of organisational structure of EU-CONEXUS has been considered as one of the most important questions related to sustainability. There are a number of different scenarios for further organisational development, from a most ambitious scenario (one institution with one president and different partner institutions in all the six countries) to a more moderate scenario of a confederation or association model. A questionnaire was distributed to explore the position of every partner concerning the level of centralisation in various specific aspects. In early September 2020, the questionnaires were received back to the Sustainability Working Group, who presented a summary

report to the Governance Board in late September 2020. The presentation covered the two key issues of a centralised form of governance and sustainability. In addition to the most appropriate form and organisation of governance, a discussion on the type of legal form which would support a long-term structural cooperation model was launched.

A first draft of a sustainability and funding strategy was presented in January 2021 that includes one more element: the development of a 'Green Campus sustainability plan' for each partner campus, which would greatly increase the attractiveness of EU-CONEXUS as an education choice for students (as well as fitting in with the general sustainability thematic subject area of the European University).

Source: Excerpt from the progress report

At the moment, the Alliance is very dependent on the EU funding. The programmes and projects are in the state of development. There is thus more time needed to secure financing or to ensure that the programmes are financially self-sufficient. The Alliance is working on ways to ensure financing in the future, the Sustainability working group of the EU-CONEXUS has presented their conclusions which will be available after the board approval in November 2021.

A3.1.5.1 Funding for the future of the Alliance

There are several scenarios for the future of EU-CONEXUS, ranging from support from national funds to developing self-sufficient joint education programmes that would be fee-based and thus financially sustainable, to getting support from other EU sources such as DG Connect. There is also a plan to develop an EU-CONEXUS network with membership fees (as an enhanced institutional contribution).

In the view of interviewees, EU funding is crucial to secure the competitiveness of the initiative and there is no doubt that it is necessary to continue this level of support in the future. EU level funding could ideally be for the core functioning of the Alliance that sustains the basis of the work of the Alliance and supports its essential activities.

According to the interviewees, it is problematic to rely on national funding as it is not guaranteed in most of the countries (one-off funding). Also, it can easily change due to national political developments such as the establishment of a new government. Moreover, EU grants are often more flexible than national level funding. National funding is according to the interviewees rather bureaucratic, at least in some countries. On the other hand, securing national funding can imply that the national government not only gets involved in the project financially, but also content- and result-wise. Increased interest and involvement in the project topic of national stakeholders and the government can then lead to changes at the level of the educational system.

Most of the interviewees argue that the ideal funding model for the Alliance would consist of a mix of funding streams of at least two sources: the EU and the national level, each of them for separate activities of the Alliance. The EU funding would be used for the core activities and basic functioning of the Alliance and national funding for the additional activities of the Alliance. According to the interviewees, it would have been a good idea to include in the EU call that national governments make a financial contribution when a university participates in a European Alliance, for example through subsidising the mandatory 20% co-financing. This would mean that the EU, the national governments and the institutions all make a financial contribution. The problem, of course, is that the EU cannot oblige the national authorities to do this. However, the base functioning of Alliances should rest on EU funding since the different rules and volume of national funding in each country could lead to significant problems in the functioning of the Alliance.

A3.1.6 Lessons

The transnational character of the university Alliance brings many challenges and lessons to the partner universities. As discussed above, the Alliance faces challenges due to different (financial) regulations and different amounts of funding in each of the partner countries.

According to the interviewees, there are many lessons learned stemming from these differences. They have experienced how difficult it is to establish a learning programme in different countries due to different financial and other regulations, for instance in the area of tuition fees (some universities are not allowed take fees as studying is for free, whilst other universities must charge students if they study in foreign language). Similarly, different levels in salaries across countries make it for universities in 'low salary countries' difficult to attract high quality researchers. The position of a 'European researcher' would be an answer to this issue.

Thanks to the cooperation and sharing of good practices across partner universities, the universities can learn new ways of applying for funding or in general working in transnational environment. For example, La Rochelle University used national finances to prepare proposals for Horizon 2020, which was according to the AUA a very clever way to use such funds, which also supported researchers from different universities to work together.

A3.2 CASE STUDY #2: ECIU University

A3.2.1 Overview of the Alliance

The European Consortium of Innovative Universities (ECIU) was founded in 1997 and is an international consortium of thirteen research intensive universities³⁴⁰, with collective emphasis on innovation, creativity and societal impact, driving the development of a knowledge-based economy. Its mission is to challenge conventional thinking with a focus on innovation in teaching and learning and entrepreneurship and societal impact of research. The fact that most ECIU members have known each other for quite some time has proven to be an asset in the drafting of the ECIU University project plan and in taking the first steps relatively quickly. Mutual trust did not need to be built up as it was already present.

November 2019, the ECIU University marks the official beginning of this European Alliance. The objective of the ECIU university is to establish a new concept of an international university, going beyond regular European collaboration. Challenge-based learning is its key concept. Education will be based on solving challenges, embedded international mobility and collaborations among the partner universities. The ECIU University type of education is open to everyone, including lifelong learners. In the first phase, the ECIU University focuses on challenges related to the UN Sustainable Development Goal 11 to “Make cities and human settlements inclusive, safe, resilient and sustainable”.

In 2020, the ECIU published its [Vision 2030](#), a long term strategy aimed at achieving the following objectives:

- *Open community.* The ECIU University aims to be an agile, need-driven, European ecosystem where demand and supply of education, research and innovation of the member universities and their stakeholders come together.
- *Cutting edge technologies.* The ECIU University will be a hybrid, digitally-enabled learning, innovation and knowledge space with fit for purpose, low-cost, high-quality and people-centric services.
- *Education and research.* It intends to be a space of vast individual learning opportunities for life; research-based learning modules offered by ECIU University and learning opportunities provided by ECIU stakeholders. Personalised learning focused on upskilling and reskilling, helping learners to stay intellectually fit and up to date with research-based knowledge, skills and competences with a focus on societal impact is the focus.
- Researchers are supposed to conduct open research and innovation and develop a career by moving between the ECIU University stakeholder organisations in an intersectoral way.
- *Innovative co-creation model.* The ECIU University aims to adopt a novel, resilient funding model for the future European University.

340 The ECIU has twelve members and one associate member (Tecnológico de Monterrey): Aalborg University, Dublin City University, Hamburg University of Technology, Institut National des Sciences Appliquées, Kaunas University of Technology, Linköping University, Tampere University, Universitat Autònoma de Barcelona, University of Aveiro, University of Stavanger, University of Trento, and University of Twente.

A3.2.2 Funding for the Alliance

A3.2.2.1 Financial management

The ECIU is based on the ECIU network, a foundation under the Dutch legal system. It has a legal entity owned and only existing out of the university Alliance members. This legal form is seen as a temporary solution. In the long run, also for reasons of financial sustainability, another legal form is to be preferred. Currently the ECIU University has no 'independent' management structure. It formally resides under the leadership of the ECIU consortium. The main bodies of this consortium are:

- the *ECIU University Board*, made up of twenty people: thirteen members of the executive boards of the member universities, two student representatives, and five stakeholder representatives from industry, and society.
- ECIU's *Presidium* consists of four persons: the President, Vice-President, the Treasurer and the Coordinator ECIU University. Each member university has a *local ECIU ambassador* and the ECIU has an *office in Brussels*.

The main financial decisions of the ECIU University are currently the formal responsibility of the ECIU Board, with an important role for the Presidium. In practice it runs slightly different. For this, it is important to distinguish two funding components. In the first component, as agreed by the members, each member pays the same fee to the foundation from which all kinds of consortium activities are being paid. The ECIU treasurer is formally responsible for this member fee component, but *de facto* this is managed by the ECIU Secretary General.

The second component is the management of EU grants - m€ 7 in total (m€ 5 Erasmus+ and m€ 2 Horizon 2020). The actual management of the second component rests with the ECIU University Project Director, appointed at the University of Twente. This second component is subject to 'normal' project management and accountability procedures. In addition to the general financial management, each institution has its 'normal' internal financial support staff. The contribution of the latter is seen as an 'in kind' contribution to the ECIU University, but recently more and more member universities are appointing staff, or enabling current staff, to carry out specific ECIU University tasks. It is foreseen to make such support more transparent in the future, so that it becomes clear which investments ECIU University is actually making.

The downside of the current two-flow model is that the costs (investments) to be attributed to ECIU University are not very transparent. This is partly due to the temporary nature of project-related subsidies, while long-term (personnel) obligations require structural coverage. In the eyes of the ECIU University, this justifies the current situation of using the two-flow model. While this pragmatic method did not cause problems during the pilot phase, it has already been indicated that this is not tenable in the long term and that a more managerial approach would be preferable, underscoring the desire to have a legal structure in place that offers the possibility of greater clarity on this point (see also below). A first step to further professionalize and strengthen the ECIU University's financial management concerns the appointment of new staff members who explicitly focus on funding and business development.

A3.2.2.2 Funding sources

For the three-year pilot phase, the budget of the ECIU University consists of various sources: EU-level subsidies, targeted national subsidies and institutional contributions. This budget has been used for the implementation of the various work packages set out in the submitted proposal for the pilot phase of the ECIU University and for complementary

activities. The estimated budget for this period is over m€18.³⁴¹ Of this amount, more than 60% of the grants are available for the implementation of the work packages as defined in the work programme (approximately m€11.5) and just under 40% of the total budget is for funding of additional activities.

If we look at the different funding sources (based on the ECIU's Progress Report), it appears that the institutions themselves make the largest contribution: over 40% of the total budget is institutional investment (over m€ 7.5); national governments contribute 20% (over m€ 3.5); and the European Commission contributes just under 40% (over m€ 7). The institutions' investments of about 40% of the total budget certainly are a rather conservative estimate. It is evident from the interviews that the institutions are (seriously) investing 'in kind', but these costs were not included in the Progress report.

A3.2.2.3 European funding

The first European subsidy for the start-up phase, being m€ 5 from the EU Erasmus+ programme, has been distributed among the member universities based on their contribution to the different work packages as described in the initial proposal. Since the universities are not involved to the same extent in the different work packages, their share of the m€ 5 differs as well. The subsidy is therefore not divided into equal parts but depends on the agreed contribution to be made. This has been regarded as a fair way of distribution and has not given rise to any grumbles.

The second European subsidy concerns the EU Research and Innovation programme Horizon 2020 part called "Science with and for Society" (SwafS). This subsidy is being used for the ECIU University SMART-ER project, which is a new model of research and innovation, based on a virtual collaborative environment, will call scientists and researchers of the member universities for joint research initiatives and project activities. This EU subsidy is distributed somewhat differently among the ECIU University members. It is again based on the effort to be delivered, but it has been mutually agreed that the respective member university will match the amount for 50%. Through this 'matching investment', the ECIU University sets up an internal fund to carry out more research within SMART-ER.

An interesting question is to what extent these European subsidies cover the costs of the first phase of setting up the ECIU University. On 28 June 2021, the ECIU University states in an [official statement](#) that this is not the case.

To make the need for more funding even clearer, the €7 million ECIU University received from Erasmus+ and Horizon Europe is only 15% of the Alliance's total financial investments. Additional support from all Member States is needed.

Although the subsidies from the EU - as well as contributions from national governments (see below) - are insufficient to realize the Alliance's ambitions, it is difficult to exactly pinpoint the size of the 'funding gap'. During the interviews, it became clear that it is practically impossible to properly map out the actual costs. This will have to be looked at more closely in the next phase in establishing the ECIU University, but for two reasons it remains a difficult exercise. Firstly, this is partly due to the working method or philosophy of the ECIU University. This working method focuses on the question 'what investments are needed to realize our ambitions?' and not on the question 'what can we achieve based on the available budgets?' A second nuance is that during the roll-out of the first phase, ambitions of the ECIU University have increased. More is being done than was

341 Based on the Progress Report submitted by the ECIU to the European Commission in the summer of 2021.

indicated in the project proposal. It goes without saying that this also increases the costs (i.e. the universities' investments). All this does not alter the fact that, according to those involved, the current investments in setting up a European university are a multiple of the EU subsidies granted.

A3.2.2.4 National contributions

There are large differences between the targeted national contributions to the ECIU University. Firstly, not all member universities received a grant from the national government to support ECIU University activities (targeted national funding). Secondly, the amounts provided by the national government vary considerably.

Universities from the following countries received a targeted national contribution: Germany, Finland, France, Italy, Lithuania, and Spain. The Irish ECIU partner (Dublin City University) did not receive targeted national funding, though the Irish Higher Education Authority confirmed that resources have been set aside to support Irish Alliance members for 2022 to the amount of €500,000 per HEI annually (still needs to be worked out in more detail). The University of Aveiro –the Portuguese ECIU partner–received PhD scholarships from the Portuguese Science Foundation, worth an average of €14.750 annually for four years. Linköping University answered the call from the Swedish Council for Higher Education (UHR) and received k€ 50, a lump sum grant with no strings attached. ECIU member universities from Denmark, the Netherlands, and Norway do not receive targeted national funding for setting up a European university.

Denmark is currently pursuing a different political course where investments are mainly national and regional in nature and leave no room for investments on a European scale (see also below what the consequences are for Aalborg University). The Dutch government is not prepared to release extra money for a university on a European scale and the current regulations - in which the institution receives money for every student who pays a tuition fee - offer hardly any possibilities. For the purpose of European universities, the current national funding system should be adjusted, but the Dutch government is not prepared to do so at the moment.

Another nuance is that the national contribution to European Alliances can take place indirectly (through the regular funding system of higher education institutions instead of funding dedicated to the Alliance). An example here is Norway. The Norwegian government does not provide a targeted subsidy for the Alliances, but through a system of “result-based funding” a payment is made for being successful in attracting external EU funds (based on “market share”). An institution that manages to secure more EU funding than others is rewarded by the Norwegian government through the regular “result-based” funding system. In the case of the University of Stavanger, a member of ECIU University, this amounts to approximately k€ 385. Although the Norwegian government does not give a targeted subsidy, this can be seen as a national contribution used for the benefit of the European Alliance.

A similar argument can be made when looking at the ‘in kind’ contributions of the institutions (see below). Work for the ECIU University is (partly) carried out by the current staff, who are paid from the institution’s budget, (partly) obtained through public subsidies from the regular national funding. Through this indirect route, all national governments contribute to funding the European Alliances. The question is whether this is future-proof.

In the box below we give some examples of the dedicated national contributions for universities in the ECIU University.

Examples national funding

The German Academic Exchange Service (DAAD) is supporting the European initiative 'European Universities' with an accompanying national programme for German higher education institutions called the "European University Networks (EUN) – national initiative". German higher education institutions in EU-funded consortia can apply for additional financial support ('topping up'). In order to systematically and efficiently support the German higher education institutions on their journey to becoming European Universities, the DAAD further supports universities with a range of flanking measures. The conditions for eligibility for funding can be found [HERE](#). A total of fifteen German universities have qualified for this DAAD grant, including the Hamburg University of Technology from the ECIU University. This concerns the first grant round 2020-2022. In the second round of grants (2021-2023) another twenty German institutions have been awarded.

In the Program of the 18th Government of the Republic of Lithuania, approved by the Parliament (11 December, 2020), full support is stated to the implementation of the European Universities Initiative.

In Finland, the development of European Universities Initiative is seen as a way to support strategic EU-level cooperation in education and research, as indicated in several national documents such as in the national vision for higher education and research 2030 and follow-up documents. Tampere University received €100.000 for the investment in IT-systems, expert services and staff salaries, allocated as a lumpsum.

In France, the EUAs are seen as an innovative and promising investment for France, which are supposed to play a major role in the transformation of HE and to serve as an experiment to bring out the universities of the future. They will help to increase mobility, promote educational innovation and initiate an approach encompassing higher education, research, innovation and society as well as a way to increase French HE global competitiveness. HEIs participating in a EUAs can submit an application for funding to the National Research Agency. The INSA Group, as a ECIU member, received a grant to hire a student community engagement manager.

Responding to a call from the Swedish Council for Higher Education (UHR), Linköping University received a small grant of €50,000 (a lump sum grant with no strings attached) to further support teachers to developing a challenge-based learning pedagogic in their courses, fitting the ECIU-U idea.

A3.2.2.5 Institutional contributions

As indicated, the universities also make financial contributions themselves to establish the ECIU University. In the first place, this is done through the membership fee to ECIU (the same for each institution). Secondly, a number of institutions have reserved a budget for ECIU activities in their own budgets (differs per institution). Thirdly, there is "in kind" funding, for example through the deployment of existing staff. The extent of this in kind contribution is difficult to indicate because different universities apply different logics. In some cases, the hours of academics are registered but those of support staff are not.

What is clear is that the size of the own contribution in absolute amounts differs considerably. The latter is not surprising for several reasons. The economic reality differs per country, as does the size and therefore the budget of the university. Moreover, the work packages and agreed tasks may differ.

It is evident from the above that budgets for investments in the first phase of setting up European universities varies considerably from one institution to another. This is due to a combination of the three sources of income. Firstly, not every university receives the same share from the awarded European subsidies (no equal distribution). Secondly, financial

support from national governments differ from country to country. And thirdly, the own contributions differ as well. These differences are partly justified by the fact that the distribution is based on the efforts to be made by a university. This means, for example, that the University of Twente itself invests a lot but also receives a considerable amount from the EU subsidies. In addition, it was indicated in the interviews that although the national subsidies are intended for the participating university from the country in question, the other members benefit indirectly because the university in question uses this subsidy to carry out activities that also benefit the other institutions.

During the interviews, it became clear that the uneven financial playing field has not hindered mutual cooperation. Based on the work packages drawn up in the project programme and agreements made within the foundation, each member makes the expected contributions. In other words, the internal financial imbalances have not had a negative impact on the progress of the entire project as such.

A3.2.3 Financial sustainability of the ECIU University

According to the ECIU, the future funding model should rely on three underlying factors: 1) full utilisation of data and digitalisation, 2) a functioning European ecosystem with memberships, and 3) the strategy based on demand and supply consisting of offerings by the ECIU University, the member universities as well as stakeholders. The core of the cost structure are investments in a personalised life-long learning experience with cutting-edge technology, and development and support of the ECIU community and university staff. ECIU Vision 2030 states that the ECIU University should be a public-private entity at the European level, owned by the ECIU member universities, with the ability to receive mixed funding and revenues at the European level. At the moment, the ECIU is working on elaborating these principles in a business case. Consideration is being given to adjusting the legal structure to make it possible for the university to be financed from different sources of income.

In the ECIU Vision 2030, the ECIU University addresses various hurdles to be tackled in the coming years, including financial issues. With respect to funding, it states that it would like to see a “Moving towards a sustainable, mixed funding model in collaboration with European Union and national governments. Conducting experiences to understand how free, cost-based and for-profit services can be merged in a funding model that is transparent to all stakeholders”.

Official statement. On 28 June 2021, the ECIU University issued an [official statement](#) outlining the steps it considers necessary to make the European university a success. It is a strong plea to increase the (financial) involvement of the EU and the national governments involved. A greater involvement of national governments is essential in order to overcome barriers to fully establish the University created by the fact that the EU's powers in the field of higher education are limited and there are different legal rules between the EU countries in which the member universities are located. Financial stability is necessary, partly to be able to enter into financial commitments with other parties.

National support and co-funding are of crucial importance for the successful roll-out of the European Universities' Initiative. Because education is a national competence, the ECIU University need the commitment of national policy-makers to overcome challenges in realising its ambitions to revolutionise the quality and competitiveness of Europe's higher education, research and innovation. [...] Long-term commitments from the EU and the Member States are necessary to realise the ECIU University ambitions. [...] The University must be able to rely on a sustainable funding source. (Official Statement, 2021)

Another aspect of the official ECIU statement refers to the legal structure of the European university of the future. The ECIU University would like to see an arrangement made at

the European level that would allow the ECIU University as an entity to have a legal structure eligible for funding, next to the higher education (member) institutions (enabling it to enter into and manage *various* financial commitments), and then setting up a dedicated central organisation with staff to drive the European university (financially) further forward. Such a European entity needs not necessarily imply the abandoning of the present foundation. Perhaps different entities could exist side by side. Although the legal structure is not the subject of this study and will therefore not be elaborated upon here, it is clear in the case of the ECIU that such a structure and its funding are related.

Business plan under development. At the moment, the ECIU University is considering, among other things, its financial sustainability for the future. They are working on a business plan. Several teams are working on this and new staff members are being recruited for this purpose. To make the ECIU University financially viable in the future, substantial subsidies from the EU and national governments are necessary but not sufficient. In the eyes of the ECIU, more sources of funding will have to be found. It is not wise to put all the eggs in one basket – a diversification strategy will have to be followed, meaning that different types of future funding are being explored. It requires a ‘business-like mindset’, which is not particularly a given in academic communities.

In addition to the necessary subsidies from the EU and national governments, alternative sources of funding are being explored. One possibility is acquiring project-based grants for education, research and community outreach. However, project-based grants offer little security in the longer term, given their temporary nature and the uncertainty of obtaining them in the first place (winning a project grant is a lottery). In addition, temporary subsidies may set processes in motion that subsequently require structural funding. Structural contributions are preferable, for example by making other members of an ecosystem in which the ECIU plays a pivotal role. Long-term strategic Alliances with (large, private) companies are certainly an interesting option in this regard. Another possibility being considered is to take out loans on the capital market.

Obstacles and concerns. There are a number of factors that can hamper the viability of a European university. Here we mention some of them, which were raised during the interviews.

The above-mentioned diversification strategy is still in the brainstorming phase and will have to be further elaborated in the business plan. This is a challenging endeavor. It will take some time to learn and apply the rules of other worlds (e.g. the private sector). If the ECIU University is going to diversify its funding base, then it also requires that it ‘sells’ its activities in different ways to different organisations. The message to the academic community, which for example has to be activated for education and research projects, is different from the message that has to go out to potential public and private investors.

Borrowing money on the capital market is not a done deal within the Alliance. After all, it involves financial risks and not every university can, or may, take on such obligations (read: risks). It will therefore be quite a puzzle in the coming period to map out this possible source of income properly and, if it is seriously considered, to convince all members of the benefits (provided that the legal rules in the twelve countries do not prohibit it).

A recurring issue is the legal status of the ECIU University. Funding issues cannot be decoupled from governance issues, which is at the European level another complicated ball game. The foundation as it currently exists probably does not offer sufficient possibilities to utilize the possible sources of funding to their full extent. Especially if public and private activities and organizations mix, the current legal structure will have to be reconsidered. A private entity alongside the foundation could be an option. This case study does however not specifically address this issue, but the legal structure, as it is currently thought, is a serious obstacle to financial sustainability.

Another recurring issue is that the ECIU University consists of twelve members from twelve different countries. A large Alliance - such as the ECIU - has many advantages, for example in creativity, capacity and mobility, but also has considerable coordination and transaction costs. More importantly, however, there are twelve national higher education systems to consider. Twelve systems with their own rules of play (different structures and cultures) and twelve governments that may have different views on the internationalization and Europeanisation of 'their' higher education system. Europe and the Member States is a politically touchy subject. A 'victim' of the latter is currently Aalborg University. The Danish government does not consider 'foreign' investments desirable; they must be of a regional or national nature, with the result that (at the time of writing this case study) Aalborg cannot be a full member in the second phase of setting up the ECIU University but might become an associate member. The fact that national governments can take a 'different stance' is of course directly reflected in the differences in financial contributions that national governments allocate to the transnational Alliances. But there are more examples of differences in rules that hamper cooperation, such as the possibility of entering into financial relationships with private organizations, possibilities for lifelong learning or the possibilities of transferring national public funds to transnational activities. Some countries, despite the lump sum character of their operational grants, are reluctant while others are more open-minded.

Another complicating factor is that various European grants that ECIU University might apply for fall under different programmes and Directorate Generals (DGs). Setting up a European university extends far beyond the mobility issue. It also concerns digitalisation, lifelong learning, labour market issues, innovation, etc. These different issues are dealt with by different DGs. Fragmentation leads to high management and transaction costs and undermines the steering capacity of Alliances. A holistic view – a one-stop-shop approach – would bring major advantages in making the European University a reality. It would mean that funding, governance, primary and secondary processes, digitalisation and the labour market could be better aligned. A European statute, tailored to transnational institutions, would be a giant leap forward.

Another hurdle to be taken is that, in the next phase, the European university must really be recognized as such - at both European and national level. It must no longer be a pilot or experiment, but a 'recognized quality' which is not questioned and whose added value is visible. As long as European Alliances retain the image of a test balloon, they will not be able to develop sufficiently.

A3.2.4 Lessons learned

The fact that the consortium has been active for more than twenty years has certainly had a positive influence, as people know each other (and each other's institutions) and already a certain sense of community exists. Because of the mutual bond that had already been formed, no precious time was wasted on getting to know each other and creating mutual understanding. The shared history in fact creates a buffer to make problems negotiable and to solve them relatively quickly.

For the ECIU is important to continue to operate as a unit. Of course, there are different views, for example, on the pace at which changes should be implemented (initiators, early and late adopters). It is important to be alert to this and to keep everyone on board. The fact that the ECIU University gives its members room to make their own choices – not everyone contributes to the same extent or to the same parts in the Alliance – means that institutions can use their strengths and do not get bogged down in activities they do not want. The latter has a demotivating effect. 'Unity in diversity' therefore has proven to work well in this Alliance.

Annex 4 Participants in the validation webinar

Organisation of the Invited experts			Country
Polytechnic University of Milan			Italy
European University Association (EUA)			Belgium
Goethe University Frankfurt			Germany
Centre for Higher Education Governance Ghent, Ghent University			Belgium
former Vice-Chancellor SUNY Buffalo			United States
University of Granada			Spain
University of Tampere			Finland
Technical University Denmark			Denmark
University of Italian Switzerland			Switzerland
European University Association			Belgium
Hofstra University			United States
European University Association (EUA)			Belgium
Innovation engage			France
Organisation for Economic Co-operation and Development (OECD)			France
Center for Research on Higher Education Policies (CIPES)			Portugal
Independent expert			Morocco
NIFU			Norway
University of Porto / Research on Higher Education Policies (CIPES)			Portugal
HESA, Canada			Canada
Independent Higher Education Strategy Advisor			Belgium
European Students' Union (ESU)			Italy
European Consortium of Innovative Universities (ECIU)			Belgium
Attendees on behalf of CHEPS and ICF			
Barend	VAN DER MEULEN	CHEPS - chair of the meeting	
Ben	JONGBLOED	CHEPS	
Cécile	McGRATH	ICF	
Ariane	DE GAYARDON	CHEPS	
Corrine	MELE	ICF	
Attendees on behalf of the European Commission			
Kinga	SZULY	DG EAC	
Marc	GOFFART	DG EAC	

GETTING IN TOUCH WITH THE EU

In person

All over the European Union there are hundreds of Europe Direct information centres. You can find the address of the centre nearest you at: https://europa.eu/european-union/contact_en

On the phone or by email

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696, or
- by email via: https://europa.eu/european-union/contact_en

FINDING INFORMATION ABOUT THE EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website at: https://europa.eu/european-union/index_en

EU publications

You can download or order free and priced EU publications from: <https://op.europa.eu/en/publications>. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see https://europa.eu/european-union/contact_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1952 in all the official language versions, go to EUR-Lex at: <http://eur-lex.europa.eu>

Open data from the EU

The EU Open Data Portal (<http://data.europa.eu/euodp/en>) provides access to datasets from the EU. Data can be downloaded and reused for free, for both commercial and non-commercial purposes.



Publications Office
of the European Union