Gendering the Academy
and Research: combating
Career Instability and Asymmetries

Supported by
the 7th Framework Programme
of the European Union
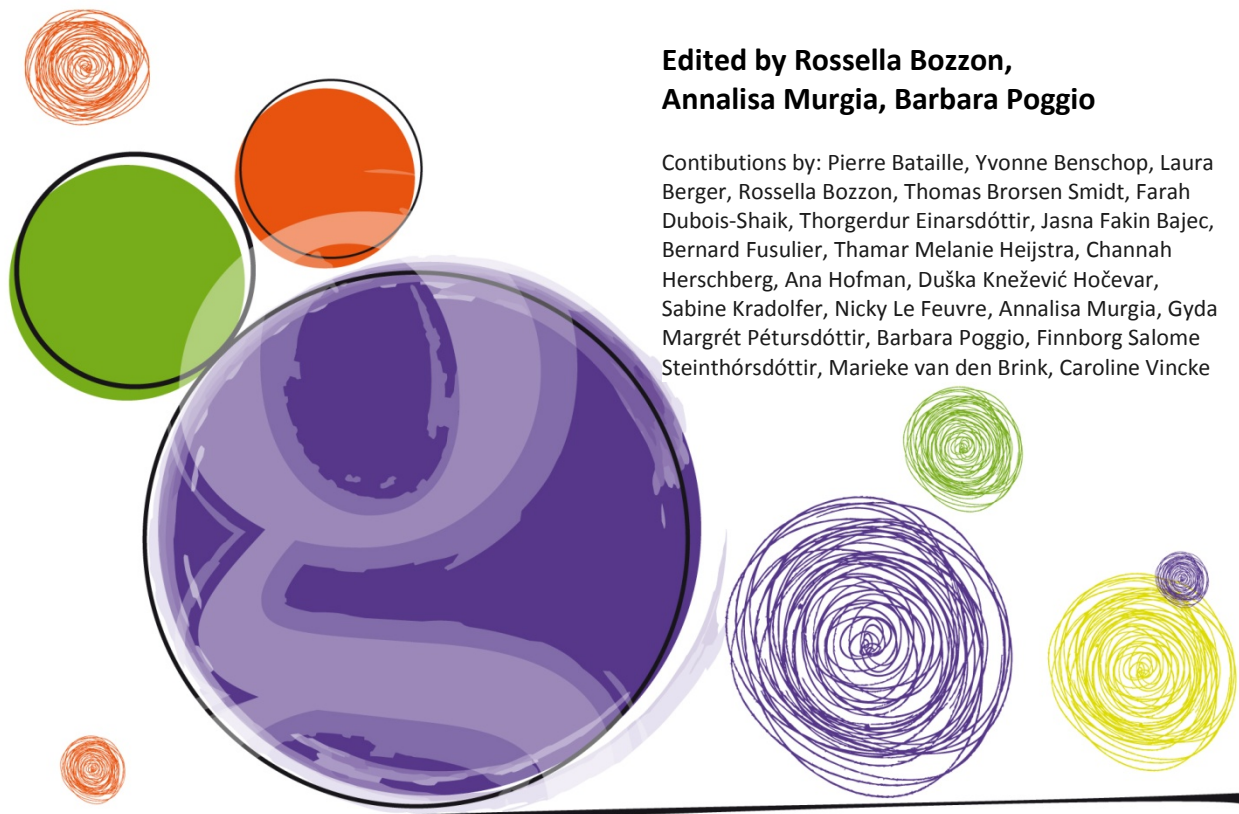
GARCIA WORKING PAPERS 9

Supporting Early Career Researchers through Gender Action Plans. A Design and Methodological Toolkit

Edited by Rossella Bozzon, Annalisa Murgia, Barbara Poggio

Contibutions by: Pierre Bataille, Yvonne Benschop, Laura Berger, Rossella Bozzon, Thomas Brorsen Smidt, Farah Dubois-Shaik, Thorgerdur Einarsdóttir, Jasna Fakin Bajec, Bernard Fusulier, Thamar Melanie Heijstra, Channah Herschberg, Ana Hofman, Duška Knežević Hočevar, Sabine Kradolfer, Nicky Le Feuvre, Annalisa Murgia, Gyda Margrét Pétursdóttir, Barbara Poggio, Finnborg Salome Steinthórsdóttir, Marieke van den Brink, Caroline Vincke

Table of contents

1

Executive summary

The first aim of this Reproducible toolkit on implementing Gender Action Plans is to give practical tools to foster structural changes in a gender perspectives in academia and research centres, and in particular to better manage early stages of academic and scientific careers, making an effort to reduce employment instability and combat gender asymmetries.

This toolkit is one of the main outputs of the GARCIA Project - GARCIA - Gendering the Academy and Research: combating Career Instability and Asymmetries, and it is designed to provide guidelines for scientific and academic organisations, at national and European level, interested in implementing similar actions.

A Gender Action Plan is a planning document that promotes gender equality within an organisation. It aims to fulfil sets of actions and to achieve structural changes on the basis of each specific situation and context. It is important for a Gender Action Plan to be self-tailored to the specific organisational context.

A good Gender Action Plan should be developed through two main steps[1]:
> 1. A diagnosis of the current situation regarding gender balance within the organisation;

---

1   European Commission (2004) Gender Action Plan in Integrated Projects and Networks of Excellence. A Compendium of Best Practices, http://goo.gl/gmOCLe.

2. A list of practical proposals of action and activities based on the above diagnosis intended to remedy the problems identified.

The GARCIA Project is targeted on combating gender inequalities in academia and research centres through the implementation of measures undertaken at cultural and structural levels in organisations, with particular regard to researchers in the early stages of their careers and with temporary positions. Since this is a phenomenon not yet well known and studied, it was deemed necessary to start with thorough analysis of the problem at different levels.

Accordingly, the first part of the GARCIA Project foresaw macro, meso and micro level analyses within the various universities and research centres members of the partnership. The research actions were focused on five key dimensions: 1) the influence of national welfare and gender regimes on academic careers; 2) gender biases in scientific management and decision-making processes; 3) gender practices and stereotypes in universities and research institutions; 4) the Leaky Pipeline phenomenon; 5) gendered subtexts in recruiting and criteria defining of scientific "excellence".

The results of this first phase were then discussed in workshops with leaders and/or staff at different levels and in different units of the organisations involved. The purpose was to create self-tailored actions directed at each of the above-cited dimensions: 1) changing gender regimes; 2) fostering gender equality in management and decision making; 3) raising awareness on gendered practices and everyday working conditions; 4) countering the 'leaky pipeline' phenomenon; 5) tackling gender inequalities in recruitment and selection processes.

The toolkit consists of the following sections:

- Methodological manual.

This section describes the research strategies used to collect, understand and analyse the relevant information concerning each dimension of the GARCIA Project. The research developed through a plurality of actions combining different methods and techniques, both quantitative and qualitative. The manual

is organised into five sections, which reflect the main research dimensions.
The first dimension is focused on the mapping of gender, care and employment regimes in different European countries based on selection and analysis of macro indicators within national and local contexts.

The second one presents the steps of the research conducted to obtain information about the managerial and financial framework and on the budgeting process through document analysis and interviews.

The third dimension centres on structural and cultural analysis of the various organisations, and in particular career structures, gendered organisational cultures, work-life balance policies, and the action taken to integrate the gender dimension into research and teaching, through the development of indicators, semi-structured interviews, document analysis.

The fourth area focuses on the leaky pipeline phenomenon, which is analysed through qualitative interviews and a web survey on "movers" and "leavers" postdocs and non-tenured researchers.

Finally the last dimension concerns the gendered sub-texts in recruitment procedures. It is based on the analysis of formal job descriptions and on the conduct of interviews with committee members and candidates in selection processes for postdoc and assistant professor positions.

●   Institutional and organisational contexts.

The second section describes the institutional and organisational contexts in which the GARCIA Project operated. The project involved seven research organisations in different countries across Europe, including public and private universities as well as research centres, both in STEM and SSH domains. The universities and research centres involved were:

- University of Trento
- Université Catholique de Louvain
- Radboud University
- University of Iceland

- University of Lausanne
- Research Centre of the Slovenian Academy of Sciences and Arts of Ljublijana
- Joanneum Research Forschungsgesel (Austria).

In the section we provide an overview of different institutional and organisational contexts in terms of how the organisational context is structured, what the general equality strategy and its main objectives are, and where the GARCIA Project implemented the foreseen actions, namely one STEM and one SSH department in each organisation. Understanding these relative differences is important for assessing the starting point of each involved organisation in order to develop more effective Gender Action Plans which consider both national and organisational specificities.

● Examples of Gender Action Plans.

the GARCIA Project aimed to implement six self-tailored Gender Action Plans in order to introduce the necessary structural changes on the basis of each specific situation and relative challenges. All beneficiaries – with the exception of Austria, which is in charge of the self-assessment and internal evaluation – followed the same action plan and were involved in implementation of all the scheduled tasks.

However, since innovation requires adaptation, a precondition for proposing new practices and actions is to upscale the identified best practices when implemented by combining them with the national, organisational and departmental contexts. Indeed, the measures planned in the GARCIA Project to promote organisational innovation in terms of gender equality are context-specific. In this section, some detailed examples of actions implemented by the GARCIA beneficiaries are provided. They include the main aims, integration with already-existing policies, the actors involved, the target, the implementation process, and a summary table showing responsibilities and timetable. In particular, each GARCIA partner presents two actions of its self-tailored Gender Action Plan based on the GARCIA Project's aims.

The selected actions are:

1) mapping labour markets and policies at national and local level (University of Lausanne – Switzerland);

2) structural organisational analysis (Université Catholique de Louvain – Belgium);

3) organisational culture and everyday working life (University of Trento – Italy);

4) integrating a gender perspective into research and teaching (Research Centre of the Slovenian Academy of Sciences and Arts of Ljublijana – Slovenia);

5) making management and decision processes gender sensitive (University of Iceland – Iceland);

6) mapping the leaky pipeline (University of Trento – Italy);

7) Giving voice to target people (Radboud University – The Netherlands);

8) Meta-analysis and creation of the Leaky Pipe typology (Université catholique de Louvain – Belgium);

9) Mentoring activities (University of Lausanne – Switzerland);

10) Mapping of formal criteria/actual practices (Research Centre of the Slovenian Academy of Sciences and Arts of Ljublijana – Slovenia);

11) Understanding and changing gender biases in the construction of excellence (University of Iceland – Iceland);

12) Raising awareness for committees members and for candidates (Radboud University – The Netherlands).

2
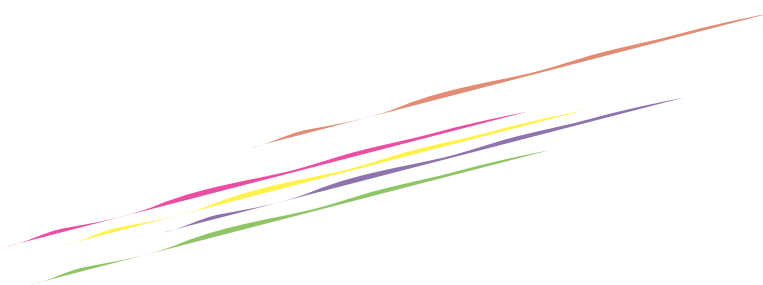
Methodological manual

One of the most innovative elements of the GARCIA Project is its focus on the early stages of academic and scientific careers, and specifically on researchers with non-tenured positions. In fact, data on research staff employed on temporary contracts (postdocs, non-tenured assistant professors, adjunct professors, etc.) are rarely collected and monitored by universities and research centres, which infrequently include these specific positions in their Gender Action Plans. It is for this reason that the first part of the GARCIA Project was mainly devoted to collecting and analysing data on this target population, since in many countries they were not always available or systematically archived and monitored by the organisations.

It is crucial to focus on the issue of gender asymmetries in scientific careers related to the problem of employment instability, since the increased flexibility of labour markets, commodification processes, and cutbacks in the resources invested in research and development have significantly altered human resources management also within universities and research centres. In particular, women in academia, in European countries but also at the global level, are more often in precarious positions than men. They have either part-time jobs or positions which do not lead to stabilisation, i.e. which are non-tenured.

One the one hand, this lack of acknowledgement and valorisation of resources and talent in the scientific context restricts the potential engagement of new perspectives and new innovators in facing European societal challenges. On the other hand, the waste of skills in academia and research caused by the persistence of gender inequalities from the beginning of academic and scientific careers has direct consequences on the quality of research and teaching within universities and research institutions. Being aware of this framework, the European Charter for Researchers and the Code of Conduct for Recruitment pay specific attention to the stability of employment contracts:

> *"Employers and/or funders should ensure that the performance of researchers is not undermined by instability of employment contracts, and should therefore commit themselves as far as possible to improving the stability of employment conditions for researchers."* *(European Commission, 2005: 17)*

Despite the declarations made at institutional level, several scholars have amply demonstrated that universities are increasingly oriented to producing 'mass' or 'serial' research work[2], employing more and more researchers on a temporary basis.[3] Moreover, as already highlighted, employment instability, in scientific research as well as in labour markets generally, is characterised by marked gender asymmetries. Women are more involved in short-term positions and deal with less valued and prestigious activities like teaching and administrative tasks.[4] Even in SSH, where the number of female students, PhD candidates and postdocs is higher in comparison with their male colleagues, gender differences become evident when the first stable positions are considered.

Through interventions that target the early stages of the academic and scientific careers, GARCIA wants to contribute to the growing presence and permanence

---

2   See, among others: Parker, M. and Jary, D. (1995) 'The McUniversity: Organisation, Management and Academic Subjectivity', Organisation, 2(2): 319-38; Willmott, H. (1995) 'Managing the academics: Commodification and control of university education in the UK', Human Relations, 48(9): 993-1028.

3   See, among others: Gill, R. (2010) 'Breaking the silence: The hidden injuries of the neoliberal university', in R. Ryan-Flood and R. Gill (eds.) Secrecy and silence in the research process. London: Routledge, 228-244; Ylijoki, O.H. (2010) 'Future orientations in episodic labour: Short-term academics as a case in point', Time & Society, 19(3): 365-86.

4   See, among others: Acker, S. and Armenti, C. (2004) 'Sleepless in academia', Gender and Education, 16 (1): 3-24; Broadbent, K., Troup, C., & Strachan, G. (2013) 'Research staff in Australian universities: is there a career path?', Labour & Industry: a journal of the social and economic relations of work, 23: 276-295.

of women in science, in both the STEM and SSH domains, and to the creation of an open labour market for researchers, inside and outside academia, able to recognise their professional experiences.

As already mentioned, the project is designed to intervene in five main areas:
1) understanding national contexts of welfare and gender regimes;
2) gender equality in management and decision making;
3) gender practices and gender stereotypes in universities and research institutions;
4) the leaky pipeline phenomenon;
5) gendered subtexts in recruiting and in defining the criteria of "excellence".

These key areas are tackled through two main stages:

- The first stage identifies existing challenges in achieving gender equality in organisations by focusing on the beginning of academic and scientific careers as crucial for understanding how universities and research centres can prevent the women's leaky pipeline phenomenon and better support researchers' careers and working conditions. This objective is particularly innovative, since previous structural change strategies have rarely considered employment instability as one of the factors that may induce women to leave their careers as researchers.

- The second stage implements innovative actions included in the Gender Action Plans intended to: situate the planned actions in national contexts of welfare and gender regimes; improve gender equality in management and decision making; change gender models in research organisations, at both structural and cultural level; integrate a gender dimension into research and teaching; counter the women's leaky pipeline phenomenon; unmask gendered subtexts of recruitment procedures and of what is considered as "excellence".

This section illustrates the methodological approach and the tools developed within the GARCIA Project to achieve the objectives described. The methods

adopted combined cultural and structural approaches to conduct macro, meso and micro level analyses. Consequently, both quantitative and qualitative techniques were used to analyse the various organisational contexts and to develop self-tailored Gender Action Plans.

2.1 Contextualising academic careers: mapping gender, care and employment regimes in different European countries

This first research activity focuses on situating job instability and gender asymmetries in the academic system within the wider societal and institutional environment. The aim is to determine how contexts structure opportunities and constraints and influence the career opportunities for women (and men) in a specific country or region, and to identify if and how national (or local) peculiarities can influence (wo)men's scientific job trajectories.

Some countries are very homogeneous in their social structure, value systems and legislative frameworks, whereas others are marked by differences among linguistic regions, ethnic groups, generations or other significant types of social stratification.

In some countries, employment patterns in HE & Research differ little from those in other labour market sectors, whereas this sector has marked particularities elsewhere.

The background data and literature analysis allows to:

- Map national welfare, gender, employment and care "regimes" (e.g. education, family formation patterns, employment, child care, health, equal opportunities, work-life balance);

- Show how these regimes structure women's career opportunities in general;

- Identify any local (cultural, ethnic, religious, linguistic, regional, etc.) differences/particularities within these societal-level "regimes", and, where pertinent, to analyse their influence on women's early academic careers;

- Analyse the extent to which the academic employment sector is congruent with or deviates from these societal and local "regimes".[5]

The analysis should focus on five domains:
1. Education policies and practices;
2. Employment and labour market policies and practices;
3. Family formation practices and policies (with particular attention to gender differences);
4. Care & work-life policies and practices;
5. Equal opportunity/anti-discrimination/diversity policies and practices (with particular regard to the position of research/academic equal opportunity policies within the national/local contexts).

In the case of the GARCIA Project, the research group in charge of this research task selected the main international statistical indicators for the analyses of domains 1, 2 3 and 4. Box 1 summarises the data collected for each domain. On the basis of these data, each project team carried out analyses for its own country and provided any significant complementary data, particularly as regards intra-national variations.

---

5   Le Feuvre, Nicky (ed.) 2015a. Contextualizing women's academic careers: Comparative perspectives on gender, care and employment regimes in seven European countries, GARCIA working papers, n. 1, University of Trento (ISBN 978-88-8443-609-2)

Box 1

Selected indicators for comparative analyses

Domain 1. Education policies and practices

- Upper and post-secondary students by sex
- Enrolment ratio at secondary level by sex
- Educational attainment by level of education, age and sex
- Graduates by type of programme and sex
- Tertiary students by field of study, type of programme and sex
- Teachers by level of education and sex
- Percentage of population in life-long learning by sex, etc.

Domain 2. Employment and labour market policies and practices

- Employment by sector of activity and sex
- Employment by public and private sector, and sex
- Employment by occupation and sex
- Employment by economic activity, occupation and sex
- Employment by level of education, occupation and sex
- Employment by status in employment and sex
- Employment by full-time and part-time status, sex
- Employment rate of persons aged 25-49 by age of youngest child and sex
- Employment rate of persons aged 25-49 by number of children aged under 17 and sex
- Employment rate by marital status and sex
- Unemployment by age and sex
- Youth unemployment by sex
- Long term unemployment by sex
- Economically inactive population by reason for inactivity, age and sex, etc.

Domain 3. Family-formation practices and policies

- Total fertility rate
- Mean age of women at birth of first child
- First marriages by age and sex
- Mean age at first marriage by sex
- Legal abortions
- One-parent families and children by sex of parent
- Private households by household type
- One-person households by age and sex, etc.

Domain 4. Care & work-life policies and practices

- Couples with both partners aged 25-49 by working pattern and age of youngest child
- Employment rate of persons aged 25-49 by age of youngest child and sex
- Employment rate of persons aged 25-49 by number of children aged under 17 and sex
- Child care enrolment and availability rates
- Time use by activity and sex
- Time use of employed persons by activity and sex
- Time spent on domestic activities by sex
- Time spent on free time activities by sex, etc.

The main data sources employed for this task were:

- The section on "Population & gender" of the UNECE statistical database (http://w3.unece.org/PXWeb/en);

- The OECD website data and periodic research reports on education (Education at Glance); labour market, research & development; family and work-life balance. For each topic, country specific research

materials are available (http://www.oecd.org/);

- Eurostat statistics (http://ec.europa.eu/eurostat/data/database) and the "Statistics explained" section (http://ec.europa.eu/eurostat/statistics-explained/index.php/Main_Page);

- Data and research reports produced by national statistics institutes;

- Research outputs of other research projects focused on similar topics, such as: QUING project (http://www.quing.eu/), UPGEM (http://cordis.europa.eu/publication/rcn/13057_en.html).

In regard to domain 5, the main aim was to provide a brief review of policies/practices to promote equal opportunities and/or to encourage the participation of women in science within their own national/regional/local context. The idea was to ensure access to information that may not appear in the national data or statistics.

Analysis and development of the following points is suggested:

- Historical time-line for the adoption of the most significant equal opportunity/antidiscrimination legislation/measures generally, including information about funding, enforcement and evaluation provisions.

- Historical time-line for the adoption of the most significant equal opportunity / antidiscrimination legislation/measures with particular reference to the academy, academic careers, academic decision-making, etc., including information about funding, enforcement and evaluation provisions

- Analytical evaluation of the effectiveness of existing equal opportunity/antidiscrimination legislation/measures, both generally and in relation to the academy

The main outcomes of this research activity were national and local policy reports,

which summarised the data and the literature analyses on the five domains. On the bases of these reports, a comparative policy report was developed.

2.2 Mapping the organisational level – integrating gender budgeting into scientific organisations

The overall objective of this research activity is to obtain insight into the managerial and financial framework of a scientific organisation, and the budgeting process in different academic fields (SSH, STEM), in order to develop concepts and tools useful for fighting inequalities by incorporating gender and minority perspectives in management and in different stages of the budgeting process.

The main purpose is to gain a complete picture of the managerial and financial frameworks of the budgeting process, and on how decision-making in recruitment and selection concerning advisory bodies works within a specific research organisation.

This diagnostic activity should make explicit the overall organisational structure, policies, objectives and management of the institutions, and potential gender biases. Management practices in the institution and the financing of selected sectors, such as systems to allocate funding, models of contracting, degree of centralisation versus autonomy and transparency, will be explored.

2.2.1 Data collection

This research activity is based on multiple data collection:

1. A desk analysis of secondary data and documents on the regulation, organisation, and management of the institution and departments involved in the research.
2. Collection of statistical data on the structure of the organisation (For more

details on the data collection process, see subsection 2.3.1)

3. Semi-structured interviews with key players (For more details on how to carry out a semi-structured interview see Box 2 in subsection 2.3.2).

Data collection should be conducted at both the institutional and departmental level.

Moreover, it is important to gather information on the data collection process itself. That is to say, whether the data were publicly available and transparent, and whether resistance was encountered when trying to obtain the data. If not all information was obtained due to such hindrances, this may be a finding in itself.

The following check list can help in monitoring the overall data collection process.

Table 1. Check list: data collection process

Information on the data collection process:	Yes	No	If no, please describe how you obtained the data:
Did you obtain all the requested data:			
- at a national level?			
- at the institutional level?			
- at the department level?			
Were the requested data publicly available and transparent?			
- at a national level?			
- at the institutional level?			
- at the department level?			
Were the data available analysed by sex?			
- at a national level?			
- at the institutional level?			
- at the department level?			

	Yes	No	If no, please describe:
Did you encounter any resistance while obtaining the data?			
- at a national level?			
- at the institutional level?			
- at the department level?			
Did the 'status' (position) of the researcher within the institution/academia matter in obtaining the data? *E.g. at UI we find it easier to obtain information/data if a professor asks for it rather than a PhD student.*			
- at a national level?			
- at the institutional level?			
- at the department level?			

Some suggestions for the interviews with key players.

Interviews with key players can be carried out to capture the process and its ideological underpinnings (discourse). An important concern here is finding the appropriate cost centre within the institution, which may be defined as the department, faculty or research unit. Hence, you may have to interview someone at the highest level if the system is centralized, and/or 2-4 persons at a lower level if the system is decentralized.

The interview outline should include the following points (for more details on the interview guide see Appendix 1):

> 1) The institute's/department's visions and strategies
> 2) Funding for the institution

3) Allocation of funding within the institution/department

4) Performance indicators

It is highly recommended that the interviews be conducted after you have started (and almost completed) the desk and statistics data collection. The interviewer will thus have better knowledge of the institution or department, and hence will be better prepared for interviews with the key players. Moreover, if some statistical or secondary data are not available, it is important to conduct a fact-finding interview(s) to acquire the data.

All the interviews should be tape recorded and transcribed.

On the basis of the interviews a content analyses can be carried out on each academic institutions' policies, visions and strategies. It is possible to perform inductive analysis of the transcripts, for instance by using the ATLAS.ti analytical program.

2.2.2 Analyses of the decision-making bodies and decision-making processes at the institutional level

The analyses at the institutional level should focus on three topics:

1. History of the university or research centre, and of the department;

2. The managerial framework;

3. The financial framework of the scientific organisation analysed.

All the documents, information, and interviews obtained can be employed to analyse these topics. The following subsections summarise the main features and questions that should guide the analysis.

⭕ A brief introduction to, and the history of, the university or research centre studied.

The aim of this part is to make a brief report on the institution where the research is conducted and its history. This part should include the structure of the academic/research institution today, its most recent legislation and regulations, recent developments and a historical overview of the institution.

Moreover, the availability of gender and equality measures in science at national and institutional level should be explored. The following check list can be employed as support in this phase. It summarises the main gender equality measures to be taken into account (Table 2).

Table 2. Check list on gender equality measures

Gender equality measures in science at national level	Yes	Partly	No
Equal treatment legislation			
Commitment to gender mainstreaming			
Commitment to gender budgeting			
Publication of sex-disaggregated statistics			
Development of gender equality targets/bench marks			
Gender balance targets in public committees			
Women and science unit in the ministry of education/science			
National committee on women and science			
National centre on women and science			

Gender equality measures in science at institutional level	Yes	Partly	No
Gender equality plan			
Gender balance targets for university committees			
Gender quotas for university committees			
Gender/women studies and research			
Programmes on women and science, special funding available			

Managerial framework

In order to analyse gender implications in managerial framework, the following topics and issues should be explored and described:

1. Management structure and practices:

- Governance: Map the structure and positions of the members of the decision-making body of the overall organisation and their sex (e.g. the president/rector, university board/council or equivalent; university forums as decision making bodies; deans, heads of faculties/departments/units, university council committees or equivalent, etc.). Explain the appointment procedures and the formal and/or informal decision-making powers.

- Financial management: Who are the key players in the budgeting process in the overall organisation, by sex and hierarchical level? In which phase of the process do they participate and which formal and informal decision making powers do they have? Is budgeting decision-making purely a technical procedure carried out by financial experts or are other university groups (e.g. stakeholders, interest groups, students) and gender experts involved in budgeting decisions?

2. The academic institution's visions and strategies:

- What is the overall vision, policy and strategic planning of the institution? When was the policy implemented?

- What are the ideological underpinnings?

- Is gender equality part of the policy? In what way?

- Would you say the policy-making is a bottom-up or top-down process? Describe the formal process.

- Does the institution address international university index rankings, such as the Times Higher Education ranking list, Shanghai Rankings, or any other comparable list, in its policy documents and set itself a goal regarding its position in the international academic community?.

- How does the university plan to achieve its goals and how does the institution monitor progress; what are the key performance indicators?

Financial framework

In order to analyse gender implications in financial framework, the following topics and issues should be explored and described:

1. Funding for the academic institution:

- How is the institution funded? Public/governmental funding and/or third party funding?

- *Public/governmental funding:* On what is the funding based? On contracts and/or performance agreements? If so, on what are they based, and what are the performance indicators? What degree of autonomy or central planning does the academic institution have over

the funding? Is the funding process transparent, and the information publicly available? If so, where and how is it published (e.g. annual reports, information on websites, etc.)?

- *Third party funding:* please inform about the nature of that funding (e.g. research grants; registration/tuition fees, sponsoring/contracts with the business community?) Is information on the funding transparent and publicly available? If so, where and how is it published (e.g. annual reports, information on websites, etc.)?

2. System to allocate funding within the academic institution:

- How is funding distributed within the academic institution (to organisational units such as schools, faculties, departments, research centres), and on what criteria?

- Are there any gender equality projects and/or programmes being funded?

- Is the budget setup transparent?

- What is the degree of centralization versus autonomy in the allocation?

- Are the funds allocated according to an incentives-based budgeting system? If so, describe the objectives of the system.

- Is the distribution of funding connected to performance and success agreements of the faculties/departments? Describe the indicators.

- Is the distribution of public funding connected to third party funding?

- Do the same principles apply to all faculties/departments?

- Is gender linked to the budgeting context? (E.g. *in some universities*

there is an incentive system where parts of the funds are distributed according to performance on gender equality measurements: see Rothe et al., 2008).[6]

3. System of evaluation that affects the academic staff:

- Are there any performance-based measurements/evaluations of the work of the academic staff (e.g. *concerning teaching, research, publications and management*)?

- Is there monitoring of progress (such as quality assurance/control, annual reports, teaching evaluations)?

- Is there an incentive based wage system? (E.g. *wage bonuses/rewards for more publications or production; wage bonuses/rewards for those who obtain research grants*).

- Is there a promotional system, and what are the requirements for promotion aside from/in addition to tenure-track positions?

- What are the demands on efficiency? Has there been increase in these demands in recent years? (e.g. *Increasing demands on international publications which are directly connected to budgeting, evaluation systems and promotion*).

- Provide the Glass Ceiling Index for the institution   according to the GCI formula (She figures 2006, p. 52):

$$GCI = \frac{P}{P_a}$$

where:
P = Proportion of women in grade A+B+C
P_a = Proportion of women in grade A

---

6   Rothe, A., Erbe, B., Fröhlich, W., Klatzer, E., Lapniewska, Z., Mayrhofer, M., Neumayr, M., Pichibauer, M., Tarasiewicz, M., Zebisch, J., and Debski, M. (2008). Gender Budgeting as a Management Strategy for Gender Equality at Universities: Concluding Project Report. Frauenakademie: Munich Germany.

2.2.3 Analyses of the decision-making bodies and decision-making processes in the departments selected

This part analyses management and decision making at the departmental level, the budgeting process and underlying criteria in the departments selected, and how women and men are presumably differently affected by this.

The analysis consists of two parts:

> 1. short introduction of the departments selected and their location within the institution analysed;
> 2. information on the conditions for academic careers within the two selected departments.

A brief report on the selected departments should be provided. The following topics should be included:

1. A brief introduction to, and the history of, the departments selected

- The location of the selected departments within the organisational structure.
- A map of the positions of the members of the decision-making body, managerial and financial, of the two selected departments and their sex.
- Explanation of the appointment procedure and the formal and informal decision in relation to duties and obligations: e.g., people in power positions do not necessarily hold power.
- Does the decision-making power, managerial and financial, rest with the head of the unit or with some forum such as a faculty/department council? If not, please explain.
- How is funding allocated within the department/unit and what is the degree of transparency within different academic fields (STEM and SSH) regarding management and financing? Describe whether there is flexibility for alterations in the allocation of money within the larger unit (school/faculty).

2. Statistics on the structure of the research staff by sex

Some statistical data on the composition of the research staff in each department should be provided. For more details on how to carry out this part, see subsection 2.3.1. On the basis of the data collected, you should be able to calculate two indicators for each department: a) the student/teacher ratio; and the Glass Ceiling Index (see above).

3. Some information and data on PhD programmes at the departments

- Do the two departments have a PhD Programme, and if so, since when? Please describe briefly how that programme has evolved over the years. Provide a brief overview including main developments.
- Are the PhD positions funded/paid/unpaid?
- Do PhD students have work obligations (teaching, assistance) with their PhD studies?
- Do PhD students pay tuition fees for their studies, and if so, how much?
- Number of PhD graduations in the two departments by sex and time of PhD duration for the graduates (date of starting PhD studies to date for graduation) in the two departments (See subsection 2.3.1);
- Number of PhDs vs. number of job openings at postdoctoral level per year (See 2.3.1).

4. Some information and data on research projects, research funding, research points/credits.

Provide the following information for each of the departments selected (See 1.3.1):
- Number of funded research projects by type of research (European, national, local, internal), by academic position, by sex of the principal investigator, and by amount of funding.
- Research funding success rate for women and men respectively (number of grants received /number of applicants) (i.e. women and men successfully obtaining research funding) from a) the institution's internal research funds and, b) national research funds, if available.

- Amount granted by sex, from a) the institution's internal research funds, and b) national research funds, in relation to the amount applied for.
- Number of applicants in relation to the applicant pool (i.e. the aggregation of people from which potential applicants may be recruited)..
- Provide average research points by sex, if they exist, for the faculty/researchers by position and sex.
- Salary (gross and/or net) depending on the available information. Amount of salary by sex and position (mean). Please provide the composition of salaries (net, overtime, bonuses), if available.

Research output

The final output of these research activities and analyses is a "**Report on gender biases in management methods and decision-making**" based on data collected by each institution involved in the project.

On the basis of each report, it is possible to find and develop a set of instruments to integrate gender budgeting in the research sector. This set of instruments can contain suggestions on:

- How to improve gender awareness of decision makers with regard to policies, objectives, management and financial decisions at all levels.

- How to deal with resistance related to gendered power relations at all levels: university boards/councils, university forums, faculty boards, department boards, leading positions of research units.

- How to increase transparency in decision-making processes and encourage a more stable and gender-equal academic environment.

2.3 Structural and cultural organisational analyses

According to the European Commission's most recent report on women in science[7], most actions implemented to tackle gender segregation at universities and scientific institutions have achieved little success, for several reasons:

- the decontextualised and fragmentary nature of interventions focused on isolated issues, not taking the broader context into account;
- the emphasis on the structural level, with limited attention to cultural elements;
- the implementation of actions exclusively addressed to women instead of scientific institutions.

Considering the complex nature of the issue, GARCIA adopted different levels of analysis in order to render interventions able to change academic and research institutions both structurally and culturally. Moreover, to be stressed is that GARCIA was not focused on women, but on dominant gender cultures in research institutions and on organisational mechanisms, which reproduce gender stereotypes and gender discriminations.

Analysis of the gendering of organisational cultures requires moving beyond the masculine/female dichotomy as a static concept and conceiving gender not as an ascribed variable, but as a dynamic and relational one,

> "*whose principal utility consists in exploring how female characteristics are attributed to women and masculine ones to men, and how gender is a social practice that positions people in asymmetric power contexts; that is to say, how the inequality of social opportunities is founded on difference*".[8]

7   European Commission (2012) Structural change in research institutions: Enhancing excellence, gender equality and efficiency in research and innovation, available at: https://ec.europa.eu/research/science-society/document_library/pdf_06/structural-changes-final-report_en.pdf
8   Bruni, A., Gherardi, S., Poggio, B. (2005) Gender and Entrepreneurship, London, Routledge.

2.3.1 Quantifying academic careers at the organisational level

The aim of this research activity is to develop and collect statistical indicators that enable the monitoring of gender differences in academic careers within the institutions and departments involved in the project.

Data of this kind can be obtained through close collaboration with human resource management teams or personnel management services or the statistical offices of your institution. It would be advisable to contact key members of human resources or other services that may give you access to their records, or provide the information you are looking for. Currently, ERP (Enterprise Resource Planning) systems are usually incorporated as internal university/research institute logistics which have a detailed information access system usually providing an evolution of figures over time. Probably, data are managed by different offices/teams/units, without an integrated approach and collected in separate databases.

The indicators gathered by the Garcia Project focus on four main areas:
    1) Gender equality in working conditions;
    2) Gender equality in career development;
    3) Gender equality in research and teaching;
    4) Work/life balance.

The following tables summarise for each selected area the main dimensions and indicators selected and collected in each institution and department involved in the Garcia Project.

Table 3. Gender equality in working conditions

Dimensions/variablel level	Statistics
Sex composition of each research/ teaching position	1) N of research staff with a permanent position: N of full professors by sex N of associate professors by sex N assistant professors by sex …

Dimensions/variablel level	Statistics
	Note: List all the possible permanent positions with research and/or teaching duties available in each department/institution.
	2) N of research staff with a temporary position: N of postdocs by sex N of fixed-term assistant professors ….
	Note: List all the possible fixed-term positions with research and/or teaching duties available in each department/institution.
	1) N of PhD students by sex 2) N of students by sex (MA BA)
	Note: For each of these positions, distinguish also between part-time and full-time positions.
Promotions	1) N of vertical promotions of research staff with permanent positions by sex and academic position 2) N of promotions of research staff with temporary positions to a permanent one by sex and academic position
Exits	1) N of exits by sex for each academic position • Full professors, • Associate professors • Assistant professors • Postdocs
Recruitment processes	1) PhD • Numbers of PhDs (ongoing) by sex • Numbers of new entrances? by sex • Numbers of PhDs obtained by sex

Dimensions/variablel level	Statistics
	2) Post-doc • N of applicants by sex • N of new entrances by sex • N of evaluators (members of selection committee) by sex
	3) Assistant professors • N of applicants by sex • N of new entrances by sex • N of evaluators (members of selection committee) by sex
	4) Associate and Full professor • N of new entrances by sex
	Note: Take account of all the relevant selection processes for positions with research and/or teaching duties available in each department/institution.
Responsibility roles	1) Sex composition of heads of research units/groups/centres 2) Sex composition of boards and committees
Salary (gross and/or net) depending of available information	1) Amount of salary by sex and position (means)

Table 4. Gender equality in research and teaching

Dimensions/variablel level	Statistics
Research projects	N. of funded research projects by type of research (European, national, local, internal), by academic position and sex of the principal investigator
Teaching	N of mandatory courses/hours taught by sex and academic position N of elective courses/hours taught by sex and academic position

Table 5. Work/life balance

Dimensions/variablel level	Statistics
Leaves	Maternity/paternity/parental leave N of days (mean) by academic position Other types of leaves due to family care N of days (mean) by academic position

A form to support the data collection is included in Appendix 2.

For each Area and Dimension presented in the above tables, you should verify:

- What kind of information is available at institutional and departmental level?
- Who manages it?
- How is it registered?
- How often is it updated (weekly, monthly, yearly…)?
- How long is it gathered (From…)?
- Is it possible to split the statistics by sex? And for other variables such as age class; country of birth?

The answers to these questions should be included in the notes to the document with the data.

It is important to try to collect all the suggested indicators for at least one year (the most recent data available), in order to gain a complete picture of the organisation. When the information is available for several years, the collection of the entire time-series is advisable.

Moreover, data should be collected for all the positions with research/teaching duties in the selected institution. To be noted is that data on temporary research positions are often not available. In this case, a crucial task of the project is to support the collection of information on these positions.

The lack of information or the impossibility of collecting data on some areas or/

and research positions has to be considered as a result of this research activity. If it is not possible to collect data on a specific area or dimension, it is important to understand and explain the reasons. Is this information meaningless to describe academic careers in the selected institution? Otherwise, the information is available but not used for statistical purposes. Is there any privacy issue connected to the limited access to this information?

The results of this data collection are included in a dedicated report on the quantitative data collected during the GARCIA Project. Moreover, some of indicators collected are included also in other research activities of the project, such as the analyses of the leaky pipeline phenomenon at the organisational level (see subsection 2.4.1), and the analysis of gender budgeting in scientific organisations (see subsection 2.2).

2.3.2 Understanding gendered organisational cultures

In order to analyse the experience of postdoctoral researchers in the research institutions involved in the GARCIA Project, we adopted a qualitative approach based on semi-structured interviews. The interviews had a twofold purpose: (i) they were used to understand researchers' meaning constructions regarding different key dimensions; (ii) through interaction with postdocs and research staff with non-tenure positions, they made it possible to conduct participatory research by directly asking the target population about the most useful actions that they would like to be implemented in the university or research centre in which they were employed at the time of the interview.

In the GARCIA Project, the study population has consisted of a sample of 20 people (10 women and 10 men) in the two departments selected – one from the STEM and one from the SSH domain – at each beneficiary institution. Interviews were conducted with non-tenured researchers and with academic staff with tenure or a permanent contract in order to understand the point of view of both temporary researchers and researchers who had recently obtained a more stable position. More specifically, in each STEM and SSH department, interviews involved:

- 6 postdocs (when possible 3 women and 3 men) or an equivalent temporary position, without the prospect of a permanent contract;
- 4 assistant professors (when possible 2 women and 2 men) or a position that was either a tenure track (a temporary position expected to become a permanent position in the long run) or the first permanent academic position.

Box 2 — Short guidelines on semi-structured interviews for analysing academic careers

What are semi-structured interviews?

Semi-structured interviews are texts obtained by recording a conversation between an interviewer and an interviewee. These interviews are formal: they are arranged in advance (and not spontaneously). The interviewer conducts the interview with a prepared set of questions and topics that need to be covered during the conversation. While the interviewer follows the prepared questions and tries to cover all topics, she/he is also ready and able to stray from the prepared guide when she/he feels it is necessary and appropriate.

Semi-structured interviews are a suitable methodological tool for providing reliable comparable qualitative data because of the set of prepared questions. The inclusion of open-ended questions and the possibility to stray from the prepared guide, on the other hand, points to new ways of seeing and understanding the issues at hand, and it reveals differences among the disciplinary and national settings studied.

Before the interview

Make sure that you are well prepared for the interview.

Familiarise yourself with the questions you need to ask.

Make sure you know the background of your interviewee – her/his position, field of research, and his/her academic CV before conducting the interview.

If necessary, organise an informal meeting (via skype, phone call, etc.) with the interviewee prior to the formal interview.

Check your recording equipment in advance and make sure that everything works properly once the interview has started.

Suggest a place where you expect that the interviewee will feel comfortable, relaxed and free to speak.

When arranging the interview, choose a time which suits the interviewee so that she/he will not be pressed by other appointments or obligations.

Make sure that you have permission from interviewees to record the interview and use the material that you obtain for academic purposes.

If needed, prepare a consent form for participation in interview research.

Interviewing

Make sure that the interview is conducted in a friendly and relaxed situation.

Ask the interviewees the set of questions prepared in advance, but also be flexible: be attentive to what your interviewees are saying and let the conversation go to topics and issues that are important to them; try to keep the conversation as smooth as possible.

Ask as many sub-questions as necessary.

Engage actively in conversation, asking questions and supporting the interviewee's statements, but also be a good listener – provide

your interlocutor with enough time to think and speak.

In addition to recording, take notes about those aspects that cannot be grasped by listening to the recorded texts – anxiety, eagerness to talk about certain topics, and hesitation to talk about others.

Be a responsive listener, honestly interested in what the interviewee has to say.

After the interview

Immediately after the interview, complete your notes with your observations and impressions that you find important, which cannot be extracted once the recording has been transcribed.

Transcribe the interview. Make sure the transcription is done accurately. Do not change any content. Both interviewer's and interviewee's statements should be included in the transcribed text. Once the interview has been transcribed, add notes where necessary in order to provide readers/analysers with the information which is not visible in the text itself.

Inclusion criteria were researchers' positions within the scientific career and their membership of research units in their department. The aim was to gain an overview of different research groups.

All the interviewees were fully informed of the research objectives and methodology. Furthermore, in accordance with the national regulations, a consent form for participation in interview research was provided. There follows an example.

In conducting the GARCIA interviews, two different temporal perspectives was explored. The first was chronological. It related to biographical life-lines and focused on past professional trajectories and expectations concerning the future. The second one concerned the twists and turns of interviewees in their

everyday lives, both at work and in other life domains.
More specifically, five key areas were explored:

1) individual trajectory;
2) organisational culture and everyday working life;
3) well-being and work-life balance;
4) career development;
5) future prospects.

Moreover, at the end of the interview, socio-demographic characteristics were collected. The interview guide is included in Appendix 3. The results of the interview analysis have been included in a dedicated report on qualitative data collected during the GARCIA Project. Moreover, they have been used as the basis, for each beneficiary, to develop a Gender Action Plan based on a participatory approach, since the target population was asked directly about the most useful and effective actions to be implemented in the GARCIA STEM and SSH departments.
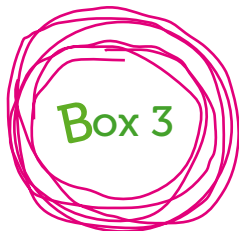
Box 3

Consent form for participation in interview research

I hereby give my consent to participate as a volunteer in the research project "___".
The contact person is ___. I understand that the project is designed to gather information about ___. I will be one of ___ persons being interviewed for this research.

1. My participation in this project is voluntary. I understand that I will not be paid for my participation. I may withdraw and discontinue participation at any time without penalty.

2. I understand that most interviewees will find the discussion interesting and thought-provoking. If, however, I feel uncomfortable in any way during the interview session, I have the right to decline to answer any question or to end the interview.

3. Participation involves being interviewed by researchers from the University of ___. The interview will last approximately ___ minutes. Notes will be written during the interview. An audio tape of the interview and subsequent transcription will be made.

4. I understand that the researcher will not identify me by name in any reports using information obtained from this interview, and that my confidentiality as a participant in this study will remain secure. Subsequent uses of records and data will be subject to standard data use policies, which protect the anonymity of individuals and institutions.

5. Persons from the ___ will not have access to raw notes or transcripts. This precaution will prevent my individual comments from having any negative repercussions.

6. I have read and understood the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.

7. I have been given a copy of this consent form.

Date _____

Interviewee signature

Interviewer signature

2.3.3 Map of existing work-life balance policies

The European Charter for Researchers and the Code of Conduct for the Recruitment recommends employers:

"to provide working conditions which allow both women and men researchers to combine family and work, children and career".[9]

However, since more and more researchers at the early stage of their academic and scientific careers are employed in non-tenured positions – which often imply being involved in simultaneous short-term projects or teaching activities – it is quite complicated to balance working and private/family life. Therefore, the spread of very short-term positions make career prospects unstable at a stage of life in which important choices are usually made, particularly in the case of women (e.g. decisions concerning motherhood). In this regard, it should be stressed that women in scientific research are the occupational category with the smallest children/women ratio in Europe.[10]

Although it is possible to identify general trends in European countries, marked differences persist due to national and organisational work-life balance policies. Consequently, in a first stage the GARCIA Project situated the beneficiary institutions in their national contexts. In a second stage, it provided a map of available services and policies, at organisational level, designed to help research staff to balance their professional and private/family lives across various life events such as pregnancy, childbirth, illness, marriage/co-habitation, job change, etc. Particular attention was paid to the availability of these policies in relation to the nature of the employment contract (temporary; tenure track; permanent). More specifically, each GARCIA institution conducted an analysis based on three different levels.

1. Firstly, a desk analysis was conducted of the more innovative work-life balance good practices within universities and research institutions at the national level.

---

9   European Commission, 2005, European Charter for Researchers and on a Code of Conduct for the Recruitment of Researchers, p.17.
10   GenisLAB (2012) "Breaking the vicious cycle of gender stereotypes and science", available at: http://www.genislab-fp7.eu/index.php/news/131-breaking-the-viciouscycle-of-gender-stereotypes-and-science

2. Secondly, a map of the available services and policies at organisational level was plotted. This analysis was integrated by interviews with key actors (i.e. the head of human resources, trade unionists, etc.), who provided additional information on work-life balance policies from the institutional point of view. For each organisational policy, it was provided: a description of the policy; who was entitled to receive it, and the conditions of access to the specific service or provision; the aspects of the policy which were mandatory and those which were discretionary; how the organisational policy differed from national or local laws and services.

Finally, in order to highlight the organisational policies, which were not available in the GARCIA institutions but needed by the research staff – and particularly by researchers with temporary positions – the empirical material collected through the semi-structured interviews was analysed. In particular, the part of the interview devoted to "wellbeing and work-life balance" was used to understand the services and provisions utilised and needed by the interviewees.

Crosswise to the above-described three levels of analysis, the areas explored were:

- Leaves: maternity, paternity, adoption, parental, dependents, and other long-term leaves (study leaves, etc.).
- Management of career breaks.
- Flexible forms of work, including part-time; working from home; flexi-time; compressed week, etc.
- Support for care, childcare or adult/elder care: the presence of services such as a kindergarten or on-site childcare; financial support for childcare elsewhere; support for career breaks; "keeping in touch" schemes during maternity leave and other long-term leaves; support for carers of adults.
- Support for personal health and wellbeing (e.g. counselling, courses on stress management, time management, etc.).
- Support for ingoing and outgoing mobility.
- Leisure time, i.e. the presence at organisational level of associations, sport and/or cultural activities.

The results of this three-level analysis – focused on the national and organisational policies and on the needs expressed by the interviewed researchers – were employed to plan self-tailored Gender Action Plans, able to support researchers in pursuing an academic or scientific career in combination with family and personal responsibilities. Moreover, the analysis and interpretation of the data collected is described in a report on work-life balance policies compiled by all the GARCIA beneficiaries and available on the project website.

2.3.4 Actions to integrate the gender dimension into research and teaching

One of the aims of the GARCIA Project was to investigate how gender asymmetries in scientific careers are connected with the use of a gender approach in research and curricula. The standpoint was that gender stereotypes in research institutions are intertwined with scientific culture stereotypes. Indeed, gender stereotypes dominate the mainstream discourses in science, and epistemological presuppositions of science are gender-biased. Hence a transformative understanding of gender and science requires questioning the dominant paradigm.[11]

Following this perspective, GARCIA wanted to show how the images of science, as well as actual scientific practices, are marked by the socially constructed gendered characteristics, roles and expectations which influence scientific work at various levels, e.g. regarding the subjects of research, methods applied, patterns of explanation, paradigms of research, interpretation of outcomes, language used, etc. Given this point, science can be viewed and interpreted as a gendered process in both its organisation and techniques. Therefore, it should be emphasised that the gender dimension in science is not just about increasing the participation of women in research projects or programmes; speaking of gendered science means also pointing out the gender perspectives of scientific inquiry at various levels, e.g. at the level of epistemology, methodology, tasks, objective and outcomes.

---

11   Laurila, P., Young, K. (2001) Synthesis Report - Gender in Research – Gender Impact Assessment of the specific programmes of the Fifth Framework Programme - An overview, European Commission, Directorate-General for Research, Luxembourg, Office for Official Publications of the European Commission.

Current approaches to mainstreaming gender equality in science in order toachieve a gender-sensitive approach take two main perspectives:

- Gender dimension in research/curricula contents;
- Promotion of gender equality by encouraging women's participation.

Gender mainstreaming is part of a wider request for transitioning to a diversity curriculum and research, which argues that ethnic, gender, and cultural diversity and the international and transnational dimensions of particular problems and policies should be included in research practices. Hence gender mainstreaming in the pedagogical process enables the development of new research, teaching, and career development paradigms in research institutions. In STEM particularly, no data on gender mainstreaming in curricula or research content, or scant data that enable to assess the impact of gendered content, are usually available.

This is due to a combination of factors: primarily a lack of training in gender policies and perhaps the absence of practical guidelines (many projects work with humans as subjects of the research and the research impact is not evaluated according to their sex/gender). Mainstreaming thus involves a concerted effort to address such curricular flaws by explicitly discussing the missing content and actively incorporating new content to shed light on these topics and their omission.

In order to address these issues, the GARCIA Project conducted quantitative and qualitative analysis of the presence/absence of the gender perspective in research contents and teaching activities. Each GARCIA beneficiary analysed the general goals, methods and tasks. This entailed systematically questioning whether gender was relevant in research projects and curricula in the STEM and SSH departments involved. Moreover, when mapping the gender dimension in research and curricula, close attention was paid not only to the inclusion of particular content, but also to its exclusion, the so-called "hidden curriculum"[12] which reinforces stereotypes about gender, ethnicity, race, class, and power relations.

There follows a list of information and useful indicators to be collected in order to analyse research projects using a gender perspective.

---

12   Jackson, P.W. (1968) Life in Classrooms. New York: Holt, Reinhart & Winston.

Box 4
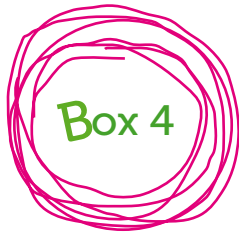
Analysing research projects using a gender perspective

1. Content

Mapping
- Research projects in which a topic is gender-related.
- Research projects indirectly related to gender (focus on family, care work, child care, and elder care or somehow related to gender, including transgender, transsexual and gender-nonconforming).
- Research projects which gather data disaggregated by sex and gender and other factors intersecting by sex and gender.
- Research projects which use gender-sensitive language (word choice, metaphors, analogies and naming practices).
- Research projects which use gender-sensitive visual representations (images, tables, graphs).

Indicators
- There are gender-dedicated projects in the target department.
- There are no gender-related projects, but there are projects which indirectly or in some respects address gender-related issues.
- There are (or not) projects which use gender-sensitive methodology, language and visual representations.

2. Objectives and Tasks

Mapping
- Any hidden aspects involving gender roles and stereotypes in the project's objectives.

- Tasks which involve individuals or populations as the research subject.
- The differences between women and men expressed in objectives/tasks.
- The target groups involved in the research are divided by sex directly or indirectly.

Indicators
- Objectives are defined according to different gender roles.
- The differences between men and women are stated in the tasks.
- Gender-specific project tasks/objectives are defined.

3. Methodology and Theoretical Background

Mapping
- Research projects which use biological sex or gender as variables.
- Research projects which use sex and gender in standards and reference models (reference populations, target groups, testing groups).
- Research projects which use gender to develop novel methodologies.
- Research projects which use feminist theories and epistemologies.
- Research projects which use concepts from gender studies.
- Research projects which use gender to develop concepts and theories.

Indicators
- Gender balance in the groups involved in the project, such as testing groups or samples.
- Gender-sensitive methods and theories which reflect gender differences are included.

4. Expected Results

Mapping
- Gender-sensitive priorities and outcomes of research projects.
- Gender impact assessment of results is included.
- Gender-sensitive stakeholders/users of the project's results.

Indicators
- Could different impacts on women and men be expected in research.
- Could the project's conclusions and outcomes of research be better utilised in real life by considering the gender dimensions included in it.

5. Project Team Structure

Mapping
- Number of women and men in the project teams.
- Number of postdocs and other researchers with temporary positions, male and female, in the project teams.
- If possible, number of working hours by men and women and by the type of contract.

Indicators
- There is a gender balance among participants in research projects.
- There is a balanced number of young scientists, both women and men.
- There is a gender balance in research teams with regard to the number of working hours.

In regard to the map of actual research projects, in the GARCIA Project each beneficiary conducted desk analysis of webpages and other available materials concerning the STEM and SSH departments involved.

The map of teaching activities was instead plotted through analysis of course webpages and student guidebooks. If information was not available, a web-survey was distributed to all the (adjunct and permanent) professors in order to collect information on the courses and interact with the teaching staff during the data collection. The survey asked professors whether a gender dimension was present in their courses. It was submitted by email, and structured in two stages: the first was a "yes/no" filter question asking if the course had any content related to gender. The button "yes" led to the second stage with three further questions:

- Which course has gender-related contents?
- Are these contents explicit in the syllabus?
- Does the theoretical or methodological approach of the course consider gender theories or perspectives?

Box 5

Analysing teaching activities using a gender perspective

1. Content

Mapping
- Specific gender-related courses (dedicated gender module).
- Number of ECTS foreseen for the gender-related courses.
- Courses which are not gender-dedicated but in which the main theme is gender-related (focus on family, care work, child care, elder care or somehow related to gender, including transgender, transsexual and gender-nonconforming).
- Courses which use gender-sensitive language (word choice,

metaphors, analogies and naming practices).
- Courses which use gender-sensitive visual representations (images, tables, graphs).

Indicators
- There is a gender studies programme or gender module in the target department.
- There is no gender studies or dedicated gender module, but there are courses which address gender-related topics.
- There is no gender studies or dedicated gender module, but there are courses which indirectly or in some respects address gender-related issues.
- There are (or not) courses which use gender-sensitive methodology, language and visual representations.

2. Objectives and Tasks

Mapping
- Any hidden aspects involving gender roles and stereotypes in the course objectives.
- The differences between women and men expressed in objectives/tasks.

Indicators
- Objectives are defined according to different gender roles.
- The differences between men and women are stated in the tasks.
- Defined gender-specific project tasks/objectives.

3. Methodology and Theoretical Background

Mapping
- Courses which use gender to develop novel methodologies.
- Courses which use feminist theories and epistemologies.
- Courses which use concepts from gender studies.

- Courses which use gender to develop concepts and theories.

Indicators
- There are gender-sensitive methods and theories which reflect gender differences.

4. Gendered Structure

Mapping
- Lecturers by sex in the dedicated gender modules.
- Structure of the students by sex in the dedicated gender modules or the ones where gender is embedded in the content of modules dealing with other topics.

Indicators
There is a gender balance between the lecturers and students.

An accurate analysis of the presence/absence of gender perspective in research projects and teaching activities is the precondition for shaping an inclusive university curriculum for PhDs, graduates and undergraduate students which is sensitive to gender differences, based on a critical approach to the educational activities, and intended to generate changes in educational practices. Moreover, it is the basis for devising self-tailored Gender Action Plans to be implemented in the target departments.

On the basis of the map produced – and in order to make researchers better aware of gender issues in science and provide them with guidance on including the gender dimension in their research proposals and teaching activities – during the GARCIA Project a Toolkit to integrate the gender dimension into research and teaching was developed. It is available on the project website.

Moreover, the GARCIA Gender Action Plans foresee training courses for research staff, both with tenured and non-tenured positions, in order to train them in

strategies useful – different for STEM and SSH disciplines – to integrate a gender perspective into research and teaching.

2.4 Mapping the leaky pipeline phenomenon

The "leaky pipeline" is the metaphor used to define discriminatory practices towards women throughout their careers, and not only as regards their access to top positions.[13] The problem is not only the greater difficulty of women in gaining access or success; it is also the fact that once they have "entered" the workplace, they face "revolving doors"[14], that is, multiple risks of leakage from the organisational system with a much higher rate than that of men. According to this process, women enter the labour market but are subsequently driven away at different stages of their career.

The GARCIA Project focused in particular on the influence of short-term contracts and non-tenured positions on the retention (or not) of women researchers. The innovative potential of this task was also related to the perspective adopted: instead of looking at the leaky pipe phenomenon from the point of view of women and men working in academia, GARCIA focused on the perspective of postdocs and temporary researchers "forced" to leave academia or research (because of a failure to recognize their work; organisational gendered constraints; difficulties in work-life balance; unaffordable demand for (international) mobility, etc.) or who had "chosen" to work outside the academic/scientific system.

The "brain drain" of PhD holders was therefore analysed from a gender perspective, giving voice to "leaked" people who are almost completely invisible in previous projects on this topic. Also in this case a structural and a cultural approach were combined. Therefore, the leaky pipeline was investigated both in a quantitative perspective – mainly through the conduct of a web-survey – and

---

13   Berryman, S.E. (1983) Who will do science? Minority and Female Attainment of Science and Mathematics Degrees: Trends and Causes: New York: Rockefeller Foundation; Alper, J. (1993) "The pipeline is leaking women all the way along", Science, 260: 409-411.
14   Jacobs, J.A. (1989) Revolving Doors: Sex Segregation and Women's Careers. Stanford: Stanford University Press.

with a more qualitative approach – through semi-structured interviews – involving non-tenured researchers who had left the target STEM and SSH departments of the GARCIA institutions.

2.4.1 Quantifying the leaky pipeline at the national and organisational level

The aim of this research activity was to obtain a quantitative map of the leaky pipeline phenomenon at the organisational level and compare it with the national level.

The outcome of the data collection and analyses carried out for this research activity was a research report describing and synthesising the main dynamics connected to the leaky pipeline phenomenon documented at the national and organisational level.

The main purpose was to increase awareness on the relevance of contextual features to acting against the leaky pipeline. Moreover, the results of this research activity, especially the information obtained at organisational level, increase knowledge about the features of post-doc job experiences, in the department involved or outside it, work-life balance issues and personal characteristics, which foster the decision to leave a research career.

On the basis of these results, it is possible to plan actions and effective mentoring activities that support the career development of young researchers according to their specific needs and actual problems.

Quantifying the leaky pipeline at the national level.

The first step is to conduct desk analysis on data concerning scientific careers available at the **national level**.

This activity yields information of two types:

1) Indicators of the level of feminization of academic positions available at the national level (She Figures, 2013)

2) Secondary data on specific career transitions and on the early stages of scientific careers.

In regard to the first point, the following indicators on the number of men and women for each academic position should be collected at the national level (and if relevant, at the local level) for:

- Bachelor and masters students by sex and field of study;
- PhD students and PhD graduates by sex and field of study;
- Postdocs by sex and field of study;
- Temporary research positions by sex and field of study;
- Tenure track research positions by sex and field of study;
- Permanent research positions by grade, sex and field of study.

This data make it possible to draw the "Scissors diagram" employed in the literature to describe the composition of men and women along the academic career ladder (She Figures, 2013).

In order to gain a general picture of the evolution of figures over time, it is important to obtain time-series data. These data can be obtained by consulting She Figures (2013) and previous national/regional research studies conducted on academic careers.

The second step is to employ secondary data and research reports on PhD holders' careers at international, or national level (and, if relevant, at local level) in order to obtain a more comprehensive picture of the leaky pipeline phenomenon and to understand how this selection process works during the first part of the career after the PhD attainment.

Some examples of the international/national and local surveys on PhD holders' careers employed in the various Garcia country reports are listed in Box 6.

Box 6 — Some examples of international, national and local surveys on PhD holders' careers

OECD/ UNESCO Institute for Statistics/Eurostat Careers of Doctorate Holders (CDH) project (2009)
available at http://www.oecd.org

References:

Auriol, L., M. Schaaper and B. Felix (2012), "Mapping Careers and Mobility of Doctorate Holders: Draft Guidelines, Model Questionnaire and Indicators – Third Edition", OECD Science, Technology and Industry Working Papers, 2012/07, OECD Publishing. http://dx.doi.org/10.1787/5k4dnq2h4n5c-en

Auriol, L., M. Misu and R. A. Freeman (2013), "Careers of Doctorate Holders: Analysis of Labour Market and Mobility Indicators", OECD Science, Technology and Industry Working Papers, 2013/04, OECD Publishing. http://dx.doi.org/10.1787/5k43nxgs289wen

Italy

Istat (2010) L'inserimento professionale dei dottori di ricerca - Anno 2009- 2010 – ("Doctorate holders' vocational integration") available at: http://www3.istat.it/salastampa/comunicati/non_calendario/20101214_00/

Istat (2014) "L'inserimento professionale dei dottori di ricerca 2014" ("Doctorate holders' vocational integration) available at: http://www.istat.it/it/archivio/145861

The Netherlands

"Careers of doctorate holders" (CDH) 2009 - available at: *http:// www.cbs.nl/NR/rdonlyres/825DDF49-1FDA-442D-A81B- 6F935F5 F7CC0/0/2011careersdoctorateholdersnew.pdf*

Sonneveld H., Yerkers M., van de Shoot R. (2010) "Ph.D. Trajectories and labour market mobility. A survey or recent doctoral recipients at four univerisities in the Netherlands" - available at: *http://www.phdcentre.eu/en/publications/documents/ Ph.D.LabourmarketFinal4112010.pdf*

Quantifying the leaky pipeline at the organisational level.

The data collection at organisational level is based on four main research activities.

Firstly, a map of the structures and rules of scientific careers at the organisational level should be plotted. The aim is to obtain a clearer picture of the internal organisation of the various stages of the scientific careers within the studied institutions.

Secondly, using data collected to monitoring academic careers at the organisational level (see subsection 1.3.1) it is possible to manage data in order to calculate the composition and the level of feminization of each research position available at the organisational level and for each department, and to compare it with the national one.

More precisely, the following data should be taken into account:
- N of research staff with a permanent position by sex, and department;
- N of full professors by sex, and department;
- N of associate professors by sex, and department;

- N of assistant professors by sex, and department;
- N of research staff with a temporary position (i.e.: post-doc, fixed-term assistant professors) by sex, and department;
- N of PhDs obtained by sex, and department;
- N of PhD students by sex, and department;
- N of MA and BA students by sex, and department;
- N of promotions by sex, and department;
- N of exits by sex, and department.

Thirdly, secondary data provided by internal surveys/researches on PhD holders and PhD students involved in the organisations analysed can be employed to gain further insight into the early stages of researcher careers within the organisation studied.

Finally, since information on temporary research positions is often limited, it is advisable to conduct a web survey on this population in order to obtain more details on their careers, future prospects, job satisfaction, and work-life balance issues. The main idea is to analyse if and how organisational and individual features influence the work trajectories and future prospects of early-stage researchers, identifying what circumstances foster the exit from a scientific career. More details on implementation of the web survey are presented in the next subsection.

The Garcia web survey

Aim of the survey

The main aim of the survey was to gain deeper insights into the current employment conditions of researchers with temporary positions in the selected departments and who were currently employed elsewhere. With regard to this specific target population, we distinguished between researchers still pursuing their scientific careers (Movers) and those who had started a new professional path (Leavers). The main purpose was to explore the leaky pipeline mechanism by also taking into account the point of view of those who had left academia.

Secondly, the survey explored some aspects (in particular, work-life balance, job satisfaction, and future prospects) in relation to those researchers currently working within Garcia beneficiary departments with fixed-term research posts. Implementation of this research exercise is an interesting challenge for all the organisations/institutions involved.

In the case of the Garcia Project several critical issues and organisational limits emerged along the way, particularly in relation to gaining access to information crucial for identifying all the persons with temporary research posts who were working or had worked in the department analysed.

This type of research can be conducted mainly in medium/large institutions. In the case of small departments, it is more advisable to obtain the same information by means of interviews (see subsection 1.4.2). Conversely, in larger institutions, the survey provided a way to involve a wider range of postdocs and temporary researchers in the project, and to find new volunteers for other Garcia research activities.

Identification of the target population

The target population of the Garcia web survey was:

- researchers currently working in the selected departments of each Garcia beneficiary institution with a postdoc or a fixed term research position;
- or who had worked in the recent past in the selected departments of each Garcia beneficiary institution with a post-doc or a fixed term research position.

The first task was to contact the administrative/human resources office of each department and ask for the list, some socio demographic details (sex), and email contacts of the target population.

Identification of the researchers no longer working in the target departments is the most challenging aspect of this research activity. In this regard, the main difficulties derive from the possible lack of systematic information on both the numbers and the composition of some types of temporary research positions.

This lack is often due to the extreme fluidity/instability of some types of contracts, as well as to the fact that most of them are not considered tantamount to university staff contracts because they are financed through external funds. Their identification can be particularly problematic in institutions characterized by a high number of research projects and high personnel turnover.

However, even in those cases in which suitable information on the target population is available, **severe difficulties in contacting possible respondents may be encountered**, for various reasons:

- institutional email addresses are rarely available to reach researchers who have left the institutions studied;
- privacy issues: contacts with members of the target population often have to be brokered by administrative offices.

It is important to contact the legal office of your institution to manage possible problems about privacy issues.

Note that these features strongly influence the data collection phase. Generally speaking, they reduce the possibility to freely conduct and monitor the data collection process, as well as to manage possible resistances to filling out the questionnaire. Moreover, the lack of information reduces the chances of verifying whether and to what extent the respondents to the survey fit the target population and estimating an appropriate response rate.

In the case of the Garcia Project, we obtained better results in those institutions where colleagues provided formal or informal support for the collection of data: for example, by sending invitation emails to possible respondents. In some cases, this was the only way to involve Movers and Leavers in the data collection.

Questionnaire

The questionnaire should explore four main topics:
1) current and past jobs;
2) the level of satisfaction with the work in the departments involved in the

project and, only for "movers" and "leavers", the level of satisfaction with their current posts;
3) future prospects;
4) personal and family life.

In the case of the Garcia questionnaire, we asked questions about the PhD experience, work experience in the Garcia departments, the current working position, work-life balance, job satisfaction, health issues, mobility and publications, future prospects and socio-demographic information. For more details on the questions, see Appendix 4.

Verify if your institution owns a licence for an online survey software. Otherwise, you can purchase one or employ one for free. If necessary, ask for technical assistance with programming the survey.

The setup of the questionnaire requires almost three months for the selection of questions, programming and testing. It is important to test the survey, checking the clarity of each question, and the time needed to answer to the questions. It is advisable not to exceed the duration of 15-20 minutes.

The first page of the online survey should contain (Box 7):

- A description of who has organised the survey;
- A brief description of the project and of the main aim of the survey;
- A description of the target population;
- And a statement concerning privacy issues in the use of data.

Box 7

Web survey first page: "Welcome to the GARCIA websurvey "

Welcome to the GARCIA websurvey!

The GARCIA Project is concerned with the implementation of actions in European universities and research centres to develop and maintain the research potential and skills of researchers in the early stages of their academic and scientific careers. Further information about the project is available at:
http://garciaproject.eu/

This survey aims at studying the working conditions, the current and previous jobs, work-life balance and future prospects of researchers in the early stages of their careers who are working or worked between 1/1/2010 and 31/12/2014 in the departments involved in the GARCIA Project.

All questions are optional, except for a few (marked with an asterisk*) which are compulsory in order to ensure that different types of users receive the right questions. It should take you 15-20 minutes to complete the survey.

Your responses will be anonymous and you will not be identified or identifiable in any report that we publish.

Thank you for taking part. Your input as well as those of your colleagues are highly valued, and we appreciate the contribution you are making by telling us about your experiences in the institutions involved in the GARCIA Project and about your career path.

The GARCIA team

Box 8 — Samplers of invitation email and reminders

Invitation email

Dear All,

The Garcia Project – funded by the FP7 Science and Society Work Programme – is conducting research on the early stages of academic research careers.

We are interested in contacting people with a PhD who are currently working at or who worked between January 2010 and December 2014 at the University of _____, in the Department of _____ or in the Department of _____.

We kindly invite you to take part in the project survey by using the following link: http://ww3.unipark.de/uc/garcia/

The questionnaire will take approximately 15/20 minutes to complete. Your responses will be anonymous and you will not be identified in any report that we publish.

For any clarification you might need regarding the survey, please contact us at: (email)

If you know of any post-doc researchers who worked in the aforementioned departments during the reference period, please send them the link to the project survey.

Further information about the project is available at:
http://garciaproject.eu/

Thank you in advance for your collaboration,

The GARCIA Team

Reminders

Dear Colleague,

[Last week] you received an e-mail message inviting you to take part in the Garcia survey.

If you have filled out the survey, thank you!

If you have not yet had a chance to take the survey, we would ask you to read the message below and complete the survey.

We are interested in contacting people with a PhD who are currently working, or who worked between January 2010 and December 2014, at the University of___, in the Department of -_____or in the Department of_____.

The questionnaire will take approximately 15/20 minutes to complete.

The link is: http://ww3.unipark.de/uc/garcia/

This message has been sent to everyone in the selected sample population. Since no personal data are retained with the surveys for reasons of confidentiality, we are unable to identify whether or not you have already completed the survey.

To remove yourself from this email list, please send an email to garciaproject@unitn.it with "unsubscribe" in the subject.

If you know of any post-doc researchers who worked in the aforementioned departments during the reference period, please send them the link to the project survey.

Thank you in advance for your collaboration,

The GARCIA Team
www.garciaproject.eu

Data collection

Open the data collection by sending an invitation email to the target population. Send a reminder every 8-10 days for at least three times. Box 8 contains the models of the invitation email and of the reminders employed for the Garcia survey.

Ask some key-persons in each department to support your work and to forward the invitation email to the target population. This can help to obtain more answers.

At the end of the first month, check the number of the questionnaires gathered and decide whether to close the data collection or whether to continue with it in order to improve the response rate.

At the end of the second month, close the data collection.

During the data collection, it is usually possible to check the quality of the data gathered and the number of completed questionnaires. Problems or errors should be dealt with during the test phase of the questionnaire and not during the data collection. However, it is advisable to check the data collection process carefully during the first two days after the opening in order to deal with problems immediately.

After the end of data collection, verify the number of completed questionnaires and arrange the codebook.

2.4.2 "Movers" vs "Leavers": a qualitative analysis of the leaky pipeline

The analysis of the experiences of postdocs and non-tenured researchers who had worked in the GARCIA departments but no longer did so yielded key insights to consider the leaky pipeline from the subjects' point of view. This approach allowed better definition of the institutional lacks to hinder the leaky pipe phenomenon.

Overall, collecting the researchers' direct experiences contributed to a more accurate representation of the matter at organisational level, so as to devise the best and most effective actions to be implemented, and to provide a better working environment for all researchers.

Similarly to the interviews conducted with postdocs and non-tenured researchers working in the GARCIA institutions, a sample of 20 people (10 women and 10 men) in the two departments surveyed – one an STEM and one an SSH department – was selected in each beneficiary institution. More specifically, in each STEM and SSH department, interviews were conducted with researchers who:

- had moved from the GARCIA institution to continue their research careers (in the same or a different country) in public or private universities or research centres;
- had left the GARCIA institution to start career paths unrelated to research.

Also in this case, five key areas were explored using the same interview guide (see Appendix n. 2), described in the previous section on cultural organisational analyses, and focused on:

1) individual trajectory;
2) organisational culture and everyday working life;
3) well-being and work-life balance;
4) career development;
5) future prospects.

Moreover, by means of these interviews it was possible to collect contacts for distributing the organisational web survey, since in most cases it was impossible to obtain from the administrative offices the email addresses of PhD holders no longer working in the GARCIA institutions.

The approach adopted made it possible to understand the interviewees' trajectories retrospectively by analysing the different experiences of PhD holders who – after a postdoc in a STEM or a SSH GARCIA department – had "moved" to another university or research centre, or "left" the academic or scientific

career for different work paths unrelated to research. Moreover, these interviews were compared with those described in the previous section and conducted with postdocs and newly tenured/permanent researchers still working in the GARCIA institutions. This comparison yielded understanding of the career trajectories of those who remained compared with those who had moved/left, and the problems faced by researchers working inside and outside academia.

In a second step, a comparative analysis was carried out. Firstly, differences and similarities between career paths in STEM and SSH disciplines were identified in the European countries involved in the GARCIA Project. Secondly, comparison was made among the GARCIA institutions in order to understand research careers in terms of both academic mobility and connections between academic institutions and private companies. A leaky pipe typology based on a meta-analysis was then created in order to determine how the leaky pipe phenomenon is articulated in different national contexts.

These research results were included in two different reports: the first focused on the leaky pipeline on the basis of the qualitative data collected at organisational level; the second dedicated to the meta-analysis able to provide a typology of profiles based on the comparison conducted.

Finally, the results of these activities provided information important for planning self-tailored Gender Action Plans and for developing a reproducible Toolkit with which to design mentoring activities more effective in supporting the careers of postdocs and researchers with non-tenured posts, with particular regard to female careers.

2.5   Deconstructing "excellence": revealing gendered sub-texts in the recruitment procedures

In order to improve the quality of the scientific system and scientific knowledge production, gender equality and diversity are key tools to promote excellence and enable sustainable success. The criteria used by academia and research centres

to define scientific excellence are allegedly neutral and objective, and often seen as unproblematic and self-explanatory. However, several critical scholars have commented on the claim of objectivity, showing that merit-based systems of evaluation are producing multiple inequalities.[15] This body of literature has shown how "excellence" is not a gender-neutral objective notion, but rather a socially constructed constantly changing process.

For instance, Acker (1990: 154) states that "rational-technical, ostensibly gender neutral, control systems are built upon and conceal a gendered substructure in which men's bodies fill abstract jobs. Use of such abstract systems continually reproduces the underlying gender assumptions and the subordinated or excluded place of women"[16].

Therefore, one of the GARCIA Project's main aims was to deconstruct excellence and to evidence how gender is intertwined with other social inequalities, in particular age, ethnicity, class, but also the type of contract. Processes and practices in which excellence is constructed were examined, in particular recruitment procedures for academic and research positions. The construction of academic and research excellence is particularly salient for those workers who hold precarious positions, as the label of excellence is the key to their inclusion in, or exclusion from, academia and research institutions.

More specifically, the project involved different levels of analysis. In a first stage, formal criteria defining the ideal candidate in recruitment processes were identified. Then the actual practices applied in appointment procedures were explored from the points of view of key players in the procedure (chairs, committee members, candidates) by focusing on gendered processes and practices in recruiting. On the basis of the data collected, on the one hand, actions aimed to create a learning environment and to make key players aware of the gendered subtext in selection criteria were planned; on the other, tools were designed to provide guidance and support for postdocs and temporary researchers in preparing job applications for tenured positions.

15   Scully, M.A. (2002) "Confronting Errors in the Meritocracy", Organisation, 9(3): 396-401; Knights, D., Richards, W. (2003) "Sex Discrimination in UK Academia", Gender, Work and Organisation, 10(2): 213-38; Van den Brink, M., Benschop, Y. (2012) "Slaying the seven-headed dragon. The quest for gender change", Gender, Work and Organisation, 19(1): 71-92.
16   Acker, J. (1990) "Hierarchies, jobs, bodies: A theory of gendered organisations", Gender & Society, 4:139-58.

2.5.1 The analysis of formal criteria

The main aim of this research activity is to analyse the formal job descriptions, human resources policy documents about career trajectories and job applications in order to identify the formal criteria used to select among candidates for temporary or tenured research positions in the departments/institutions selected.

The reference period should be at least five years. In this way, it is possible to have a sufficient number of observations for the analyses.

The first step is to identify the administrative offices that manage job calls, documentation, and reports on selection procedures in the institution studied and understand how to obtain all the documents needed for the analyses. Sometimes this information is not public, and privacy issues can restrict access to the formal documentation.

The following documents should be gathered:

1) Human resources (HR) documents about career trajectories and job applications;
2) Strategic human resource management/personnel plans from the research institutes;
3) If available, official/formal job applications? for different academic levels;
4) If available, specific talent management policies;
5) Appointment reports of the past five years.
The documents collected can be analysed using the research outlines proposed below.

Analysis of HR documents

- Is there special attention paid in the documents to early academic careers?
- How are academic excellence and/or quality described in the documents?
- What criteria for early stages of academic careers are present in the

formal documents?

- How and to what extent are these criteria specified?
- Is there a difference between the criteria for tenured and non-tenured positions?
- To what extent do the official criteria in HR policy documents match the criteria in the job descriptions?
- Are there any references to the university's affirmative action/gender equality policies?

Analysis of job descriptions

- How generic or specific is the job profile in terms of academic discipline?
- How are excellence and/or quality described in the job descriptions?
- What criteria are present in the job descriptions?
- How and to what extent are these criteria specified?
- Which criterion is dominant in the job descriptions?
- Is there a difference between the criteria for tenured and non-tenured positions?
- Are there any references to the university's affirmative action/gender equality policies?
- It is also possible to conduct a content analysis of the formal criteria using software for this type of analysis (for example: ATLAS.ti)

Analysis of appointment reports

1. Qualitative analysis
- What is are the decisive criterion/a?
- How much emphasis is placed on research, teaching or other criteria?
- Is any attention paid to the gender of the candidates?
- What are the competencies, skills of the preferred candidate?

2. Quantitative analysis
For each appointment analysed, it is important to obtain information about:
- the job profile;

- the list of applicants (number of applicants by sex);
- the composition of the committee (by sex);
- and the final rationale for appointing the preferred candidate.

More precisely, a table/matrix in which each row reports an appointments/ selection procedure and the columns summarize the following variables, should be provided.

Variables

- Department (STEM = 0, SSH = 1)
- Announced position
- Contract type (e.g., temporary, permanent, tenured)
- Duration of the announced position/contract
- Number of FTE of position?
- Year of job start
- Number of candidates that applied, by sex
- Number of candidates on short list, by sex
- Sex of appointed candidate
- Nationality of appointed candidate
- Year of PhD degree of appointed candidate
- Appointed individual was an internal or external candidate (internal = 0, external =1)
- Number of committee members, by sex
- Sex of committee chair
- Positions of female committee members
- Positions of male committee members
- Position publicly advertised, yes/no

On the basis of these data, some descriptive statistics on the recruitment/ selection processes at the organisational level can be provided. For example: the composition of the candidates by sex, and the sex composition of the committee, etc.

The main outcome is a report that describes the formal criteria and selection procedure for temporary positions within the studied institution and departments over the past five years.

2.5.2 Exploring actual practices in recruitment procedures

In order to understand actual practices in STEM and SSH GARCIA departments, an interview guide was designed. Interviews and focus groups were conducted with recent members of an appointment committee for postdoc or assistant professor positions. The main focuses were (i) how the selection process took place, and (ii) the requirements and criteria that an eligible candidate should meet.

The interview consisted of three parts (Appendix 5): selection requirements for a postdoc or an assistant professor position; the specific procedure(s) in which the interviewee was involved as a committee member; questions on the department's policies.

The materials collected should be analysed in order to determine how gender is practised in the construction of academic excellence/quality. The core questions addressed are these: whether selection criteria play out differently or similarly for male and female candidates; whether the competencies of male and female candidates are rated differently; whether criteria can be considered to be more masculine or feminine; how the "selection game" is played and who the key players are; what power processes take place in the recruitment and selection (who is included in, or excluded from, the decision making, who has a decisive voice, etc.).

All the information gathered will be used for a profound gender analysis to reveal the gendered practices in the construction of excellence in order to raise awareness among committee members and candidates. Moreover, actions are designed to create a learning environment and develop, for each beneficiary institution, (i) a tool set for reflexive focus groups to be conducted with committee members, and (ii) workshops for prospective candidates and non-tenured researchers to prepare applications for tenure positions. Therefore, also in this case, the results of the interviews were the basis for the construction of self-tailored Gender Action Plans.

3

Institutional and organisational context

In this section, we provide an overview of the different institutional and organisational contexts involved in the GARCIA Project. The project partnership consists of seven European research organisations, including public and private universities as well as research centres, representing different European countries. The various research organisations constituting the GARCIA partnership depict different situations in terms of numerical gender equality and gender organisational policies. In each organisation at least one department of STEM disciplines and one department of SSH disciplines has been involved.

The different organisations and departments involved are the following:

1) University of Trento (Italy): Department of Sociology and Social Research (DSRS) and Department of Information Engineering and Computer Science (DISI);
2) Université Catholique de Louvain (Belgium): Institute for the Analysis of Change in Contemporary and Historical Societies (IACCHOS) and Earth and Life Institute (ELI);
3) Radboud University (the Netherlands): Institute for Mathematics,

Astrophysics and Particle Physics (IMAPP) and Institute for Management Research (IMR);

4) University of Iceland (Iceland): Faculties of Physical Science and Political Science;

5) University of Lausanne (Switzerland): Faculties of Biology and Medicine (FBM) and Faculty of Social and Political Sciences (SSP);

6) Research Centre of the Slovenian Academy of Sciences and Arts – ZRC SAZU (Slovenia): Fran Ramovš Institute of the Slovenian Language and Biotechnical Faculty of the University of Ljubljana (BF): Department of Agronomy;

7) Joanneum Research Forschungsgesel (Austria) is in charge of the internal evaluation of the project.

For each research organisation we will briefly describe the institutional and organisational context in terms of how the organisational context is structured, the general equality strategy, and the departments involved.

3.1 University of Trento (UNITN)

The University of Trento (UNITN) is a medium-sized university for the Italian context, with more than 16,000 students, and about 600 faculty members and 600 staff personnel.

The University of Trento was founded in 1962. In 1982, the University (until then private) became public, with a statute that guaranteed self-government.

Recently, the institution has undergone profound changes. The most important is the devolution of the University: in July 2011, the Italian government approved a legislative decree which devolved to the Autonomous Province of Trento (PAT) the national normative and administrative functions pertaining to the University of Trento (d. Lgs. 142/2011). This transition increased the levels of autonomy of the University from the national regulation.

The Devolution of the UNITN was finally implemented in 2012, with approval of the new Statute of the University and the official introduction of the new Departments (Statute of the University of Trento, D.R. 167, April 23, 2012)

The mission of UNITN is to promote and integrate three areas of activity: research, training, and local development. UNITN aims to improve its capabilities and knowledge to achieve scientific results of international importance and, consequently, to be acknowledged as a high-level institution in both research and teaching. More precisely, UNITN aims to increase its economic resources, visibility and prestige in the European and international context.

Since 2012, the institutional structure has consisted of 13 organisational units, which bring together teaching and research: 10 Departments and 3 University Centres.
The list of the departments comprises:
    1) the Department of Economics and Management;
    2) the Faculty of Law ;
    3) the Department of Sociology and Social Research;
    4) the Department of Humanities;
    5) the Department of Psychology and Cognitive Science;
    6) the Department of Physics;
    7) the Department of Civil, Environmental and Mechanical Engineering;
    8) the Department of Information Engineering and Computer Science;
    9) the Department of Industrial Engineering;
    10) and the Department of Mathematics.

The inter-departmental centres are: CIBIO – Centre for Integrative Biology; CIMEC – Centre for Mind/Brain Sciences; and SSI – School of International Studies.

There are three main central governing bodies: the Rector, the Academic Senate and the Board of Directors. While the Academic Senate manages all scientific aspects, the Board of Directors manages the financial and administrative ones. In addition, there are two auxiliary bodies, the Board of Auditors and the Evaluation Group, and a managerial body, the General Directorate.

The organisational and management system is organised and located in three different areas:

- The Scientific and Technological headquarters, the "Hill", where the STEM Departments (including the Department of Information Engineering and Computer Science Department) are located;
- The "City", where the SSH Departments (including the Department of Sociology and Social Research) are located;
- Rovereto, a town 12 km south of Trento, which hosts the Department of Cognitive Sciences.

According to the Governing Bodies, this organisational structure delivers customized and integrative services through decentralized offices; and, at the same time, it promotes homogeneous and high-quality services to the various structures, along with efficient connection between the "head offices" and the "departments". The technical-administrative structure is organised into seven Head Offices[17] managed by a General Director.

At present, UNITN runs 55 degree courses, numerous first- and second-level master's programmes, and continuing-education programmes. There are also two Schools which offer advanced-learning courses and 14 PhD programmes.

UNITN has a low presence of women in its research and teaching staff. In 2014, the proportion of women in the overall teaching staff composed of full, associate and assistant professors was 27%, while the Italian average was 36%. The low presence of women also characterizes the gender composition of UNITN boards: at the end of 2014, women represented only 20% of the total number of board members, and within each board or committee there was often only one woman (Rapetti et al., 2015).

---

17   Head Offices: Central Management; H.R. and administration management; Financial management; Education and student services management; Buildings and estates management; Information and communication technology management; University library system and Research.

Figure 1. Map of the main governing bodies

Legend:

☐ Governing Bodies	
⬭ Bodies supporting the Governance	
⟷ Stronger relation between bodies	
⬚ Scientific Management	
⬚ Administrative and financial management	
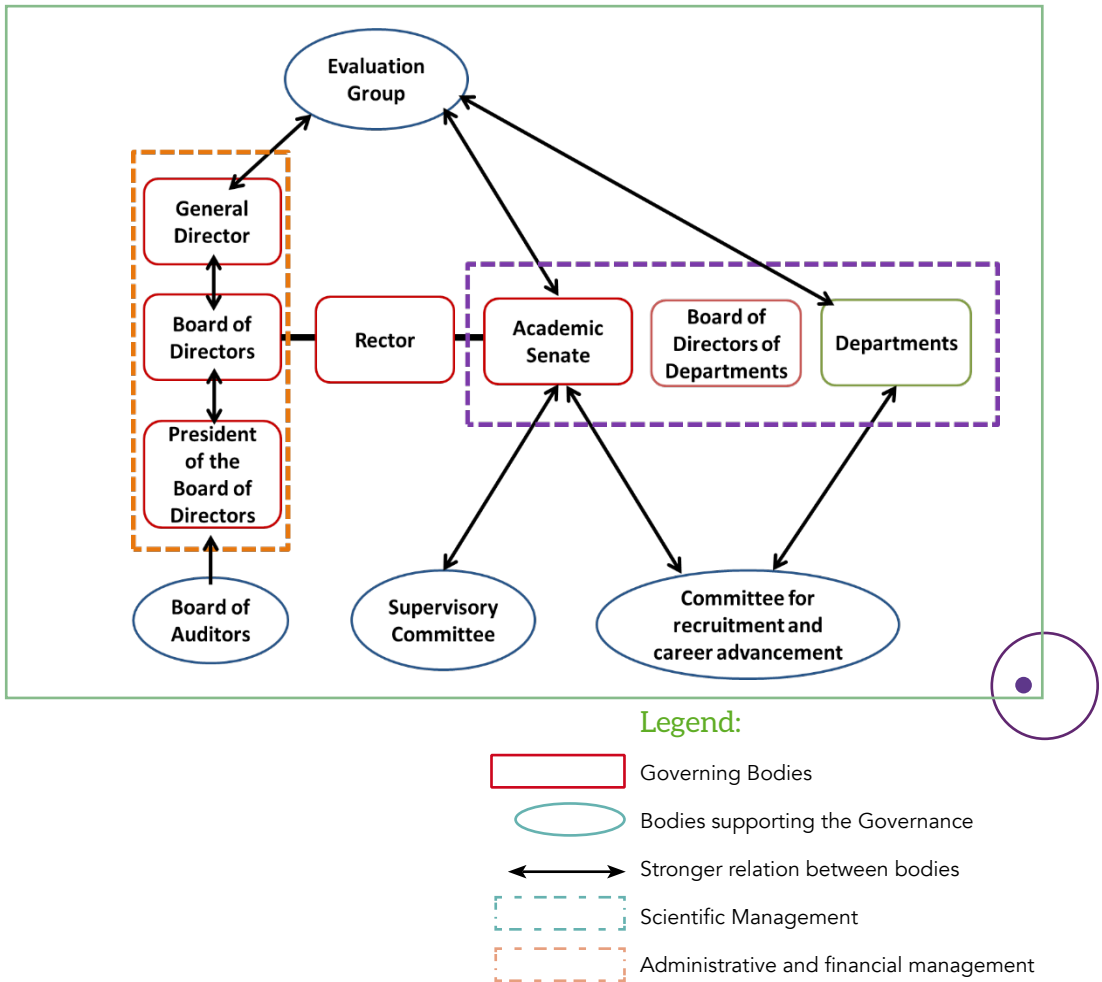
3.1.1 Department of Information Engineering and Computer Science

The Department of Information Engineering and Computer Science (DISI) was founded in 2012 after the last national university reform in 2010 (the so-called "Gelmini Reform") and the introduction of the new Statute of UNITN in 2012 DISI replaced the Department of Information and Communication Technology (DIT), founded in 2002.

The Department includes two primary areas of the ICT: Computer Science and

Telecommunications. The aim of DISI is to develop these disciplines individually, but also to promote interdisciplinary approaches in order to develop the entire spectrum of skills required to develop the advanced technologies that underpin innovative applications and services.

The DISI is organised into eleven research units:
1) Data and Knowledge Management 2) Embedded Electronics and Computing Systems; 3) Language, Speech and Interaction; 4) Machine Learning and Intelligent Optimization (LION); 5) Multimedia Signal Processing and Understanding; 6) Remote and Distributed Sensing; 7) Signal Processing and Recognition; 8) Social Informatics; 9) Software Engineering, Formal Methods and Security; 10) Systems and Networks; 11) Wireless Networking.

DISI offers 3 BA degrees; 2 MS degrees (in English); 3 Double/Joint Degrees (in English); 1 Doctoral School (in English).

3.1.2 Department of Sociology and Social Research

The new Department of Sociology and Social Research (DSRS) was launched on 29 October, 2012, after approval of the new Statute of UNITN. The new DSRS, which replaced the old Department of Sociology and Social Research, the Department of Theory, History and Social Research, and the Faculty of Sociology, has been designed to merge distinct research and teaching activities previously managed separately.

The DSRS is the oldest department of sociological studies in Italy: the first faculty of sociology was established in 1962 in Trento.

The DSRS's scientific areas span across different disciplines. The official presentation of the DSRS highlights the strong inter-disciplinary character and the wide variety of approaches (theoretical and empirical research) of the Department: "sociologists, political scientists, historians, economists and anthropologists work together in their teaching and research activities"[18].

---

18   Research in UniTrento – Skills for innovation, p. 45: http://goo.gl/xWTJzq and official Department website: http://web.unitn.it/en/sociologia/28032/history

The Department hosts nine research units, each providing students and colleagues with a specialized forum for their research: 1) Età della vita – eVita; 2) Local Development and Global Governance – LoG; 3) Centre of Social Inequality Studies - CSIS; 4) Research Unit on Communication, Organisational Learning and Aesthetics – RUCOLA; 5) STSTN – Science and Technology in Society; 6) VADem – Values, Belonging and Democracy; 7) Centre for Interdisciplinary Gender Studies – CSG; 8) Research Centre on Democracy and Global Governance – DEMOGLOB; 9) and Migration Scenarios and Social Changes – SMMS.

The DSRS offers: 3 BA degrees; 3 MS degrees (in English); 2 Double/Joint degrees (in English); 1 Doctoral School (in English).

3.1.3 Existing Gender Action Plans or Policy at UNITN

Gender equality as a value, and the importance of equal opportunity policies are included in the Ethical Code of UNITN approved by the Academic Senate in March 2014. The text specifies that UNITN guarantees equality for all and tackles

discrimination based on sex, age, ethnicity, religion, disability, sexual orientation, marital status and pregnancy. Moreover, specific attention is paid to enhancing the abilities and expertise of people with particular mental and physical health conditions. However, no initiative has been taken to date to spread knowledge on the founding values within the University community since the approval of the Ethical Code (Rapetti et. al, 2015).

The document most useful for understanding the equality policy of the UNITN is the (first) Affirmative Action Plan for Equal Opportunities (AAP) 2014-2016, foreseen by the Strategic Plan 2014-16 and approved by UNITN in February 2014. The document lists 6 general goals and 12 horizontal actions to promote equal opportunities, structural changes, organisational wellbeing and dialogue with the local community. The main actions proposed and their implementation can be summarised as follows:

1. Promote the coordination of activities among all the university bodies with responsibility for equality and organisational wellbeing.

2. Institute a Supervisory Committee for the promotion of equal opportunities, workers' welfare and non-discrimination. The members of the Committee were elected on February 2015 and started their activities on May 2015.

3. Establishment of an observatory on equal opportunity and organisational well-being. At this stage, the observatory has conducted a needs analysis of students and staff (academic and administrative) relating to the AAP goals, and a qualitative mapping of the work and study conditions of the university community (e.g. equal opportunities, disability, wellbeing, sexual harassment, homosexual discrimination, etc.).

4. Obtain the Family Audit certificate. The analysis phase was completed in January 2015 and the action plan has been developed.

5. Promote training activities, including the integration of gender and equal opportunities themes into degree courses and training initiatives for administrative staff. In this regard, a training programme on harassment for administrative staff

(for office managers) has been organised.

6. Overcome asymmetries by the promotion of structural changes and the support of equal career opportunities for men and women, and the advancement of women's presence in governing bodies. There are currently several activities in progress. They are:

> I. Mapping good practices in the equality and diversity policies of other Italian, European and non-EU universities (in particular, UK and USA) in order to identify those innovative actions that may apply in the context of UNITN.
>
> II. The introduction of incentives for promoting women in associate professor positions and fixed-term researchers recruitment (approved by the Academic Senate).
>
> III. Analyses of gender imbalances in decision-making bodies, recruitment and promotion, and the allocation of research funding. This action has been integrated with the research activities of the GARCIA Project and the Family Audit process with particular regard to data on the work-life balance and gender composition of academic staff with fixed-term contracts.

7. The organisation of gender-sensitive initiatives addressed to local stakeholders. In this regard, UNITN, in collaboration with private and public stakeholders, has organised several public events (educational, cultural and organisational) to promote wider and deeper attention to gender discrimination and equal opportunities. Courses have been held for lower- and upper-secondary school students in order to counter gender segregation in educational choices.

There is a positive interaction between the aims and actions of the GARCIA Project and implementation of the Affirmative Action Plan. More precisely, the project promoted the inclusion of researchers with non-permanent contracts (mainly postdocs) as beneficiaries of equal opportunities actions and policies. Moreover, it affected the decision to include fixed-term researchers as members of the work team in charge of these policies (e.g. two precarious researchers participated in an action plan on the Family Audit in order to highlight their specific work conditions (Rapetti et al. 2015).

3.2 Université Catholique de Louvain (UCL)

We will give a short description of the institutional context of the Université Catholique de Louvain and its two institutes SSH and STEM, which are the GARCIA departments in question, in French-speaking Belgium.

In January 2010, UCL acquired a new organic regulation. 13 faculties (see below) and 21 institutes (see below) are part of three sectors: Human Sciences, Health Sciences, and Sciences and Technology.

Faculties and schools: Human Sciences sector
- Faculty of Theology
- Faculty of Law and Criminology
- Faculty of Economic, Social, Political and Communication Sciences
- Louvain School of Management
- Faculty of Psychology and Educational Sciences
- Faculty of Philosophy, Arts and Letters

Faculties and schools: Health Sciences sector
- Faculty of Medicine and Dental Medicine
- Faculty of Pharmacy and Biomedical Sciences
- Faculty of Public Health
- Faculty of Motoric Sciences
- Faculties and schools: Sciences and Technologies sector
- Faculty of Sciences
- Polytechnical School of Louvain
- Faculty of Architecture, Architectural Engineering and Urbanism (LOCI)
- Faculty of Bioengineering

Institutes
The second level of operation in the UCL university organisation, along with faculties, is the research institute that develops and implements research policies in the scientific disciplines. An institute can articulate its policies around research centres, or research poles. Institutes and centres are supported by

technological platforms centring the technical and administrative staff around a coherent set of scientific and technical facilities (testing laboratory, archive centre or translation…). They can be integrated in an institute, or co-managed by several independent institutes. The platforms also support teaching and services to social activities. Alongside these structures, research centres bring members of one or more institutions together around a common project. The aim is to encourage interdisciplinary research, high-level and stimulating temporary groupings of people around disciplinary objects or common themes.

Figure 2. UCL's organisation chart

Boards *(eg. Rectorate and University Council)* Direction and offices					
Sectors **(Faculties, Research Institutes and Technology Platforms)**					
Human Sciences Sector		Health Sciences Sector		Science and Technology Sector	
F a c u l t i e s (Teaching)	Institutes (Research)	F a c u l t i e s (Teaching)	Institutes (Research)	F a c u l t i e s (Teaching)	Institutes (Research)
Schools	Centres	Schools	Centres	Schools	Centres

3.2.1 The Earth and Life Sciences Institute (ELI)

The STEM Earth and Life Institute (ELI) consists of five research poles. These five research poles are again organised into (inter) sectorial, inter-institute and institutional platforms. The five research poles are Agronomy (ELIA), Biodiversity (ELIB), Earth & climate (ELIC), Environmental sciences (ELIE) and Applied microbiology (ELIM).

The institute, currently presided over by a male professor in bioengineering, assembles more than 430 members, of which 50 are professors, more than 260 researchers and PhDs and around 120 technicians and administrative personnel.

This institute has more than 300 senior and junior scientists – bioengineers, physicists, agronomists, ecologists, geographers, and microbiologists – who jointly study the evolution of agro-systems, ecosystems, the water cycle and the climate, and who develop new production methods and biotechnologies for a sustainable development.

The governing bodies are the council, the bureau and the management board of the institute. The UCL website states two main missions/objectives for ELI: 1) reducing uncertainty; 2) understanding how our planet functions and contributing to sustainable development and solutions.

There are seven different doctoral schools:
- BEE - Biodiversity, Ecology and Evolution;
- Territorial Development;
- ENVITAM - Sciences, Technologies and Environmental Management;
- Geography;
- Plant Science;
- SCAIB – Agronomic Sciences and Bioengineering;
- UNITER - Sciences of the Universe, Space, the Earth and the Climate.

3.2.2 Institute for the Analysis of Change in Contemporary Societies (IACCHOS)

The SSH Institute for the Analysis of Change in Contemporary and Historical Societies (IACCHOS) is a scientific confederation consisting of 12 research centres entirely or partially inter-reliant: these are organised either according to specific variations on a topic; or as interdisciplinary centres; or as inter-sector centres; or as network centres. There are approximately 200 junior and senior researchers and academics working in IACCHOS (from the sociology, anthropology, history, psychology and educational science faculties) and around 20 administrative coordinators. Management of the institute is headed by the president, and its governing bodies are the council of the institute, the bureau of the institute and the management board of the institute. The Institute of Change in History and of Contemporary Societies was created in 2010 on the basis of the development plan of the UCL, in a perspective of interdisciplinarity.

Crédit photo:BenoîtSneessens

3.2.3 Existing Gender Action Plans or Policy at UCL

Before the Strategic Plan 20 20 published in 2015, the university had no official, specific and structured policy on gender equality. The latter was integrated into general policies and practices of the university.

Equality Policy/strategy on national and institutional level

In specific regard to scientific research and higher education in the Wallonia-Brussels Federation, both in its declaration of Community policy 2009-2014 and in the "Wallonia-Brussels Partnership for female and male researchers", the Government is committed to taking measures to encourage equality between men and women in scientific careers. Within this framework, the Government has granted the university academies a subsidy of 150,000 Euros and requested that a "gender contact person" be appointed within each university.

In addition, a "Women and Sciences Committee" was inaugurated in 2008. It includes male/female representatives of the universities of the Wallonia-Brussels

Federation, the National Fund for Scientific Research, the Office of the Minister in charge of scientific research and administration (DGENORS and the Equal Opportunities Directorate). This Committee's goal is to share experiences and identify concrete problems and obstacles confronting women intending to devote themselves to research and to propose decretal or regulatory modifications to the public authorities, as well as actions aimed at furthering equality between women and men in scientific and academic careers.

At the local level, the Université Catholique de Louvain committed itself to participating in this "gender" policy by signing, in January 2006, the "European Charter for Researchers" and the "Code of Conduct for the Recruitment of Researchers" (the Euraxess initiative), and by reiterating its commitment in July 2010. In this strategy, UCL commits itself to developing a series of concrete actions, among which an inventory on the gender question within the institution. It also, logically, signed the convention with the Wallonia-Brussels Federation and designated a "gender contact person" within its administration.

The Université Catholique de Louvain evidently complies with regulations in the matter of work/life balance policy (which are regularly transformed and are very complex). It has also taken some initiatives of its own. However, there is no official and integrated work/life balance policy, which makes its identification difficult.

We have identified five fields of action in favour of the work/life balance and gender equality:

1. Autonomy at work and spatial-temporal flexibility. UCL, in its institutional and organisational dimension, does not control the entirety of the working time of its researchers and academics; rather, it leaves autonomous regulations to operate on an individual basis. In order to favour mobility (home-workplace) and to facilitate conciliation of private and professional life by its personnel (particularly administrative personnel), in January 2011, UCL concluded together with the trade union delegation a collective agreement on teleworking.

2. Leaves and work interruptions. In line with the legal dispositions of civil law (researchers employed with work contracts and administrative personnel – not academic personnel), the employees of UCL benefit from a series of entitlements to leave or career interruptions relative to private and family circumstances: maternity leave, paternity leave, parental leave, sick leave, credit-time, etc. The academic personnel, on the other hand, have a specific status: due to their particular status, they maintain a right to their salary in the case of absence for health reasons. Furthermore, they can negotiate with the authorities to find temporary arrangements. In effect, at UCL the predominant logic is that of an academic corps, of which a community of peers is elected with the rector as the primus inter pares. Despite this statutory difference, UCL has participated in meetings of the Women and Sciences Committee, which is raising the question of 'family leaves' and trying to increase the possibilities offered to the academic and scientific personnel.

3. Psychosocial supports. Like all employers, UCL has to respect the health rules and the rules on health and safety at work. The university has also taken two initiatives: the 'Barometer of the psychosocial load' (in 2011, at the request of the Committee for Prevention and Protection at work, UCL has introduced a tool for assessment of the psychosocial load of its workers); and persons of confidence and councillors of prevention. Moreover, each new faculty dean and institute president is invited to receive training in management and psychosocial risks in order to detect, prevent and solve human resources problems.

4. Support for researchers' careers. Three measures can be integrated in support of the careers of researchers; first, financial support for young researchers at UCL to undertake international mobility; second, the policy of a sabbatical year for academics, notably with a financial aid for family stays abroad; third, the definition of an individually-defined academic project which permits academics to coordinate their requests and needs, and take their private engagements and those of the institution into account.

5. Measures for the children of personnel. Aware of the difficulty encountered by staff members in finding day-care places for their children of low age at the UCL site, on 31 March 2011 UCL decided in concertation with trade unions

to invest in the creation of a day–care centre called Pomme d'happy. Within the framework of the National Office of Childhood (ONE), this structure has 20 places for children between 3 months and 3 years of age, until they start kindergarten (école maternelle). These places are reserved, as a priority, to children of members of UCL personnel.

What appears with respect to a gender axis in research and teaching at UCL until 2015 is that this did not amount to an institutional policy. One finds instead local initiatives and particular persons in charge of them. The Gender Research Group (GREG), for instance, is a recent initiative called for by academics and researchers who, in their own estimation, foresees a gendered analysis in research.

However, this group of researchers does not have the resources to undertake a full research programme. Another example is the minor in gender studies. This minor (bachelor level) was carried forward by certain militant gender scientists, and it was constructed on the basis of already-existing courses in which the gender dimension was strongly linked to the principle lecturers of the respective courses.

That said, currently institutional work is under way to support individual initiatives and to envisage a "gender policy" in the Strategic Plan 20 20.

Strategic Plan of UCL 2015

A recent change has been made to the ongoing gender action plan of the UCL. Within the framework of a specific mandate under the responsibility of the Vice-Rector for Staff Policies?, the UCL strategic plan includes a gender policy aimed at supporting equality practices at the university.

For this purpose, since 2014 a gender appointee has been entrusted with the following tasks:

- piloting a gender policy in matters of human resources management for the three categories of personnel (full-time, part-time, and technical and administrative staff);

- coordinating activities related to gender in matters of teaching, research, and the service of actors in these different domains.

The gender appointee is supervised by the Vice-Rector for Staff Policies. Moreover, there is a HR administrative appointee responsible for assembling and writing up the annual state about gender at UCL.

In this context, a gender action plan has been defined as follows:

Personnel policy

1. Assembling gender statistics on the situation of UCL personnel.
2. Informing on gender policy at UCL.
3. Ensuring a fair mix in the composition of selection and promotion committees, and informing the members of committees in a clear and efficient manner about the challenges/principles of the mixed composition.
4. Engaging in reflection on the criteria used to evaluate different categories of personnel ("alter-evaluation" taking into consideration the principle of "alter-excellence"), and forming/informing the members of the committees.
5. Proposing formations and workshops linked to the professional accompanying of different categories of personnel in their careers (notably mentoring activities).
6. Ensuring a work/life balance (for instance, sensitizing the heads to the principle of legitimacy for women and men; informing about policies and conditions which permit a better work/life balance - parental leaves, sabbatical leaves, teleworking etc. - as well as the management and the different categories of personnel; ensuring the replacement of staff in cases of parental/sabbatical/adoption and maternity leaves).
7. Informing persons who are victims of gendered discrimination about their rights.
8. Presenting and communicating information in a non-discriminatory manner.

Teaching

1. Clarifying the programme of the 1st cycle of gender studies (Minor).
2. Proposing a 2nd cycle programme in gender studies (master specialization to

be offered in UCL or participating in a interuniversity initiative).

3. Providing precise information about gender in education at the UCL (beyond the 1st and 2nd cycle in gender studies), and adding a section which includes the "gender dimension" in teaching modules in order to make this information accessible to the users of the teaching programmes (students).

4. Sensitizing students and teachers to the question of equality (the principles of equality and gender stereotypes).

5. Presenting and communicating information in a non-discriminatory manner (for instance, sensitizing the administration about gender languages).

6. Informing persons who have been victims of gendered discrimination.

Research

1. Pursuing the structured integration of research on gender at UCL (accompanying the embedding of gender-linked research structures (for example GREG, Gender Research Group) in the institutional organogram.

2. Initiating and supporting gender research.

3. Providing information about gender in research at UCL (for instance, integrating/developing a section that enables inclusion of the gender dimension in the UCL databases).

Service to Society

1. Communicating to the general public results on gender policy.

2. Engaging in dialogue with civil society (putting at disposal of the greater public the expertise and experience in matters of gender Policy of UCL, in particular by updating the page "gender experts", and developing links with the associative world and enterprises.

3.3 Radboud University

The aim of this section is to elaborate on the Dutch part of the context and contents of the Gender Action Plans as part of the GARCIA Project toolkit. We first provide some information about Radboud University as a whole and the two research institutes studied - the Institute for Mathematics, Astrophysics and Particle Physics (IMAPP) and the Institute for Management Research (IMR). We then discuss existing policies on gender equality in the university and the two institutes.

Radboud University was established on 17 October 1923 with the name Catholic University Nijmegen. The Radboud Foundation was the body behind this initiative, and it financed the university with funds collected from the Catholic community. It was not until the late 1960s that the university was fully funded by the Dutch government. The Catholic heritage means that Radboud University is rooted in an old but strong tradition of research, teaching and learning. In accordance with this tradition, it is open-minded about the relationship among science and society. Besides high-quality research and education, the strategic plan 2015 includes two main pillars: internationalisation and value for society.

Radboud University is a broad, internationally oriented university that aspires to be one of the best in Europe. No specific national or international rankings are mentioned in the vision document, nor the strategic plan 2015-2020. In 2014 and 2015 it was chosen by students as the best 'broad' university in the Netherlands. Together with the RadboudUMC teaching hospital, the university aspires to create an intellectual environment that inspires and challenges students and staff so that they can extend the scope of academic disciplines and benefit society. There are seven faculties – Philosophy, Theology & Religious Studies; Law; Arts; Medical Sciences; Science; Social Sciences; and the Nijmegen School of Management. Radboud University has 19,000 students and 5000 staff members.

The Board of the Catholic University Foundation supervises and advises the Executive Board of Radboud University and the Board of Directors of the Radboud university medical centre. The Executive Board of the university (College van

Bestuur) has statutory responsibility for the University, establishes the general policy for the seven faculties, and is the 'daily' governing board. Each faculty has its own faculty board, chaired by the dean, which leads and governs the faculty, determining the course charted by the faculty as a whole in consultation with faculty councils. Furthermore, Radboud University has a number of consultative bodies that regulate student and staff participation and input.

The chart below shows the organogram of Radboud University. The GARCIA Project studies two research institutes in particular: the Institute for Mathematics, Astrophysics and Particle Physics (IMAPP), and the Institute for Management Research (IMR).

Figure 3. Organogram of Radboud University

Source: http://www.ru.nl/english/about-us/organisation/organogram/
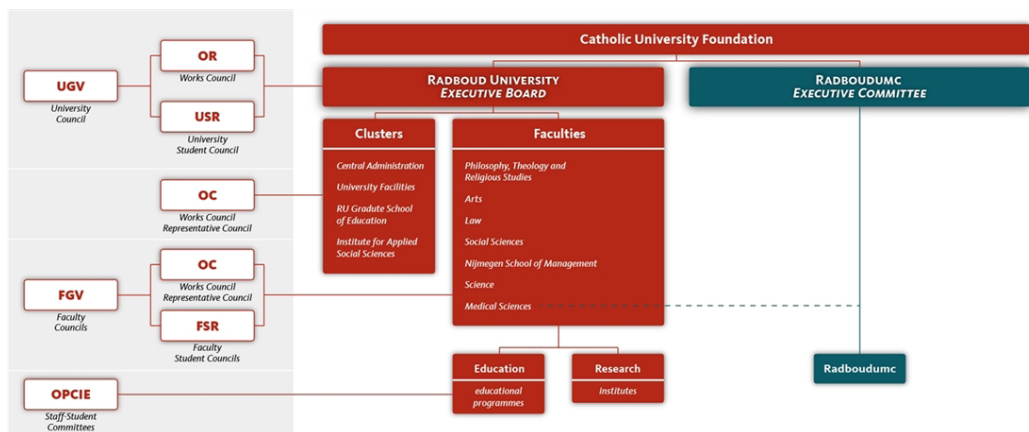
3.3.1 Institute for Mathematics, Astrophysics and Particle Physics (IMAPP)

The IMAPP is one of six research institutes located within the Faculty of Science. It was established in 2005. The Faculty is headed by the faculty board including the dean, vice-dean of research, vice-dean of education, the director of business operations, a student assessor, and a secretary.

The IMAPP is headed by a director (professor of mathematics) and a managing director, and it consists of three sub-departments: mathematics focuses on three interdisciplinary themes, Mathematical Physics, Algebra & Topology and Applied Stochastics; astrophysics focuses on observational and theoretical research in the area of astronomy; and high-energy physics studies elementary particle physics at the smallest distance and the highest mass scales attainable and is divided in Theoretical and Experimental High-energy Physics.

In 2014, the number of tenured and non-tenured staff at IMAPP was 101, with 83 men and 18 women. The student-teacher ratio for IMAPP ranged from 1.1 in 2009-2010 to 0.91 in 2012-2013. The glass ceiling index for IMAPP was 1,5 (13 + 7 + 0/ 13) in 2013. Note that these figures are based on a very small number of two female professors, and one has since left. Also to be noted is that the STEM field has a disproportionate amount of professors on the staff, which influences this index.

3.3.2 Institute for Management Research (IMR)

The IMR is the overarching research institute of the Faculty of Management Sciences - the educational institute is the Nijmegen School of Management. The Faculty is governed by the Faculty Board, which consists of the dean, vice-dean of research, and vice-dean of education. The vice-dean of research leads the IMR: the person in this position is responsible for the organisation and coordination of research efforts within the institute and advises the dean on research policy. The vice-dean of research is responsible for allocating research time to the researchers, encouraging innovation, promoting coherence in research, promoting external collaboration, advising the dean on the use of research funding, and monitoring the quality of the research and the quality of the research training.

The Faculty of Management Sciences of which IMR is the research institute has five separate departments: business administration; public administration; geography, planning and environment; economics and business economics; and political science. Researchers are appointed within these disciplines. A few years ago, the IMR started organising its research not only along disciplinary lines but

also by centring it around research topics to stimulate multidisciplinary research. This resulted in the establishment of multiple 'research hotspots', among which one large and firmly established hotspot is called 'Gender and Power in Politics and Management'.

In 2014, the number of tenured and non-tenured staff at IMR was 303, of whom 166 were men and 137 women. The student-teacher ratio for the IMR ranged from 36.2 in 2009-2010 to 39.9 in 2012-2013. The glass ceiling index for IMR was 3,1 (27,3+18,8+38,4/27,3) in 2013.

3.3.3 Existing Gender Action Plans or Policy at Radboud University

Gender equality in general university policies

Radboud University has no separate Gender Action Policy or something similar; rather, it incorporates its gender equality programme into the university's general (HR) policies. The university has reserved a budget for emancipatory goals, such as the women's networks, the university-wide mentoring activities, and the newly established 'family-friendly' policies.

The strategic plan 2009-2013 devotes one subsection to gender equality. It states:

"The number of women in the positions of full and associate professor, as well as in other higher management positions, is still small. Radboud University will stay alert to this aspect and strives for a substantial increase in the share of women in these ranks".

Gender equality is explicitly referred to in the strategic plan 2015-2020. Under the heading "our employees", one of the goals for 2020 is as follows:

"Specific actions to appoint and keep young talent – men and women with different nationalities – in top positions have led to a more diverse campus and a balanced distribution between men and women. For all positions at least 25% of the posts are filled by men and at least 25% by women, while the percentage of international staff is at least 25%".

The plan furthermore speaks of 'diversity' in general:

- *"A 'Mohrmann' programme, named after the first female professor at the University, has been established, supporting the appointment of more diverse professors and board members";*
- *"A diverse academic community has been formed: all staff feel equally involved."*

Some other focal points that relate to gender equality directly or indirectly are these:

- *"We have improved the sustainable employability of staff in all phases of their careers by means of the Create Your Own Career programme, which focuses on individual assessment and coaching. This also includes a family-friendly attitude"* (no further explanation);
- *"In order to be appointed a professor, at least five years' experience is required elsewhere, preferably abroad."*

Furthermore, the Executive Board and Board of Deans approved a new HR agenda 2015-2020[19] (derived from the strategic plan) in April 2015, in which gender and diversity form an important pillar, and precarious workers are explicitly mentioned and targeted as well. Topics in which gender and/or precarious workers are included are leadership development; 'finding and binding employees'; internationalisation; employees talent development; and 'quality through diversity'.

---

19   Written by the Personnel Department, in accordance with deans and directors, input from different units, expert departments, researchers.

Institute for Mathematics, Astrophysics and Particle Physics

Within the IMAPP more attention is paid to gender equality on a policy level than in the IMR.

At the beginning of 2015 the Faculty Board of the Faculty of Science established a gender committee and tasked it with formulating recommendations to increase gender equality within the Faculty. Representatives of the various institutes were gathered under the supervision of the vice-dean of research. Two delegates from gender equality projects (EGERA/STAGES and GARCIA) were included as advisors. In the course of a few months a report was written, which included ten concrete recommendations for achieving gender equality. The recommendations included faculty-specific mentoring activities, a diversity coordinator, and a fellowship budget for female tenure track assistant professors. The report was discussed and approved in its entirety, and the recommendations were accepted by the Faculty Board in May 2015. The Board has now (September 2015) established a committee, chaired by one of the female professors of the Faculty, with the task of implementing the recommendations.

The Faculty earlier drew up a Strategic Plan 2012-2016 as a complement to the (previous) University Strategic Plan. The plans concern education, research, people, resources, and methods. Concrete key performance indicators are provided for each area. Apart from the goal of striving for more women students, there is no mention of gender-related issues in the strategic plan.

Institute for Management Research

In May 2015 the Faculty Board was in the process of drawing up a new strategic plan for the Faculty, following the end of the previous strategic plan (2011-2014) and changes in the composition of the Faculty Board. In the document entitled 'Onset for Discussion of the Strategic Plan' addressed to the Faculty Council, there is no mention of the terms 'gender', 'sex', 'diversity', or 'women', implying that the topic of gender equality is not yet a focal point of the strategic plan.

In regard to precariousness issues, the plan states that the Faculty wants to reduce the number of temporary contracts.

No separate Gender Quality Plans or the like exist within the faculty.

Other developments

The university has two women's networks: a university-wide Halkes Women Faculty Network, aimed at women PhD candidates, associate professors, and a Network of Women Professors. The former organises several meetings per year, including round table sessions and seminars, to both empower individual women academics and raise awareness for a more inclusive university culture. One of the main aims of the latter is to lobby the Executive Board for changes in policies and greater concern for a more inclusive university culture. The network boards are in close contact with each other and with the Executive Board.

Furthermore, other European gender projects (EGERA and STAGES, carried out in the Faculty of Management Sciences) are working to raise awareness and make changes concerning gender equality within the Faculty of Management Sciences and the Faculty of Science.
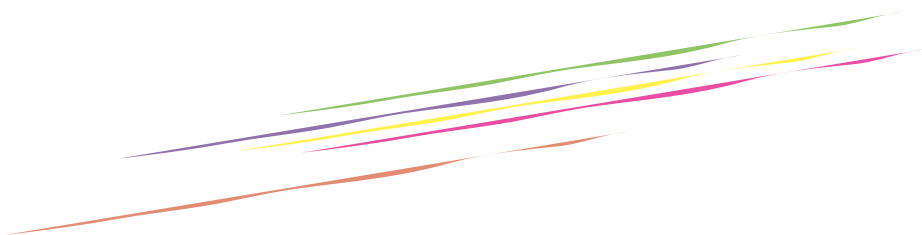
3.4 University of Iceland (UI)

The University of Iceland was founded in 1911 and is the oldest and largest higher education institution in Iceland. UI is a well-established public institution within Icelandic society, which counts just over 330,000 citizens, and is seen as the country's 'National University'. The University is a comprehensive research and educational institution organised into a central administration and five academic schools, with 25 faculties and four interdisciplinary study lines. UI offers around 400 programmes for approximately 13,000 registered students, who enter free of charge with regard to tuition fees but pay an annual student registration fee.

The university falls under the auspices of the Ministry of Education, Science and Culture. The following acts, in particular, cover higher education and the operation of UI: The Higher Education Institution Act, no. 63/2006, and the Act on Public Higher Education Institutions, no. 85/2008. UI was for long kept under close governmental control, but since around 1990 UI and the Icelandic academic community have gained more autonomy from the state government.[20]

In 2006 the University set itself the goal of becoming one of the top 100 universities ranked in the Shanghai Jiao Tong University list. At that time, UI did not appear in any of the global university ranking lists. However, it wanted to make the effort to do so in order to attract more governmental financial means to the university, and to legitimate its position within the country.[21] In order to achieve that goal, research-related activities were prioritized. Despite the worldwide financial crisis in 2008, and the subsequent Icelandic state austerity measures and the exponential increase in the number of students, UI has been eager to keep alive the dream of becoming one of the 'Harvards' of the world.

At UI there are five different schools: School of Education, School of Engineering and Natural Sciences, School of Health Sciences, School of Humanities, and School of Social Sciences.

---

20   G. Karlsson (Ed.) (2011)).AldarsagaHáskólaÍslands 1911-2011. G. Karlsson (Ed.). Reykjavík: Háskólaútgáfan.
21   Hálfdanarson, G., Matthíasdóttir, S. and Guðmundsson, M. (2011).AldarsagaHáskólaÍslands 1911-2011. G. Karlsson (Ed.). Reykjavík: Háskólaútgáfan.

Figure 4. The management structure of the University of Iceland
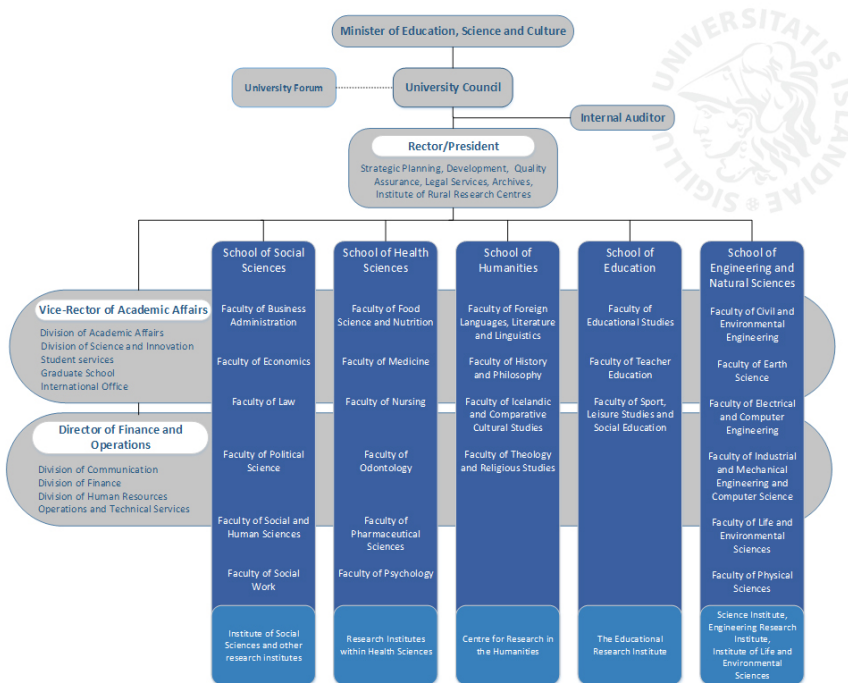
Governance of the University of Iceland

The governance of the University of Iceland is in the hands of the University Council and the Rector. The Rector is the head of the university's administration and the University Council. S/he is the highest representative of the institution and the spokesperson for the university.

The rector appoints the deans of the academic schools for a five-year term, in accordance with the University Council rules of procedure. The deans work under the Rector's mandate. The dean of a school governs day-to-day operations and acts as its academic leader and spokesperson within and outside the University.

The dean of a school is responsible for implementation of the University of Iceland's policy at the school level.

The school dean appoints the faculty heads for a two-year term, in accordance with a nomination determined at a faculty meeting. The faculty head answers to the school dean, and the dean is the faculty head's immediate superior. The head of a faculty is the academic leader of the faculty and is responsible, in consultation with the dean of the school, for formulation of faculty policy.

The appointed Rector for the last 10 years was a woman, but she was succeeded by a man in the summer of 2015. The vice-rector and the CEO of the University are men. Three men and two women are heads of the schools, and the majority of the heads of faculties are men.

3.4.1 Faculty of Physical Sciences

The Faculty of Physical Sciences belongs to the School of Engineering and Natural Sciences and is responsible for teaching and conducting research in mathematics, physics and chemistry at the University of Iceland.

The Faculty of Physical Sciences offers BSc.-degree programmes in mathematics, physics, chemistry, biochemistry and molecular biology and engineering physics with flexibility for some specialization within these major programmes. Besides furnishing teaching and training to undergraduate students, the Faculty of Physical Sciences is responsible for providing basic instruction in its subjects to large groups of students within the University of Iceland, including engineering, computer sciences, geology, biology, food and nutrition sciences, medicine, pharmacology and deontology. The faculty offers two-year master programmes in biochemistry, physics, chemistry, mathematics, engineering physics, statistics and applied statistics, and doctorates in biochemistry, physics, chemistry, mathematics, statistics, and ecological modeling.

In October 2014, 337 students were enrolled at the faculty. 202 of them were men and 135 women, making the gender ratio among students 1: 0.67.
In 2014 working in the faculty were 35 teachers, in Table 6 divided by gender and occupation. The teacher/student ratio at the faculty is roughly 1:10.

Table 6. Teachers divided by gender and occupation

	Prof.	Asso. Prof.	Ass. Prof.	Adj.
Men	27	4	2	0
Women	0	2	0	0
Total	27	6	2	0

3.4.2 Faculty of Political Science

The Faculty of Political science belongs to the School of Social Sciences. Faculty members conduct research in various fields, individually and in collaboration with other scholars, businesses or organisations. The main research areas are public administration and public management; voting and political parties; international affairs; the European Union and European integration; small states; contemporary security and defence policy; political psychology; democracy; gender studies; equality.

The Faculty offers B.A. programs and doctorates in political science and gender studies and offers master's programmes in international relations, journalism, European studies, media studies, gender studies, public administration, comparative politics, small state studies, political science, and Western-Nordic studies. As of February 2014, 580 students were enrolled at the faculty, 208 men and 372 women, making the gender ratio among students 1:1.79.
As of 2014 work in the faculty were 15 teachers, in Table 7 divided by gender and occupation.

Table 7. Teachers divided by gender and occupation

	Prof.	Asso. Prof.	Ass. Prof.	Adj.
Men	7	0	1	0
Women	1	1	3	2
Total	8	1	4	2

3.4.3 Existing Gender Action Plans or Policy at UI

The University of Iceland has a rich tradition of constructing equality policies. There are three different gender equality policies that are relevant to our particular context. The first is the official University of Iceland Equal Rights Policy 2013-2017, which consists of general guidelines covering the institution as a whole. Moreover, all schools, including the School of Social Sciences and the School of Engineering and Natural Sciences, have their own detailed gender equality policy. We present a brief summary of the core values listed in each of these policies, as well as an overview of the actions listed.

University of Iceland Equal Rights Policy 2013-2017

The current equal rights policy is based on three main pillars: University of Iceland Equal Rights Programme 2009-2013, University of Iceland Policy Concerning the Affairs of Disabled People from 2002, and University of Iceland Policy Against Discrimination from 2005. The overarching principle of the current policy is to
> *"ensure that all students and employees at the University of Iceland have equal rights and equal status, and to promote their active participation within the University community."*

The policy is also built on the idea of intersectionality, and as such recognises that when working towards equality in a broad sense, the fact that Icelandic society assumes that all individuals are either male or female must not be ignored. Unavoidably, to a certain extent discrimination is always based on stereotypical ideas about women and men. At the same time, other factors may be involved, such as disability, origins, religion or sexual orientation. Measures intended to level the status of women and men therefore have more general implications and improve the status of all individuals.

The policy is comprised of four main objectives:
- Ensuring integration of the equality dimension in all operations at the University of Iceland;
- Fostering diversity amongst employees at the University of Iceland;
- Taking the equality dimension into full consideration in organising studies, teaching and research;
- Taking the equality dimension into full consideration in the implementation of administrative projects.

Attached to each of these objectives is a list of measures, the name or office of the party/parties responsible for implementing the said measures and a deadline/time frame for when measures must be implemented. At the end of the process, it is subject to critical review.

Part of the official equal rights policy is also that each School should construct its own equal rights policy. For the purposes of this report, we here present a summary of the equal rights policy of respectively the School of Engineering and Natural Sciences to which the Faculty of Physical Sciences belongs, and the School of Social Sciences to which the Faculty of Political Science belongs.

School of Engineering and Natural Sciences, Equal Rights Policy 2014-2017

This equality policy is also constructed around the framework of objective – measure – responsibility – time frame, in much the same way as the overall gender equality policy of the University of Iceland. This particular gender action plan sets three main objectives:

1) Gender mainstreaming must be part of all decision-making processes, and everyone involved must have a basic understanding of the praxis of gender equality. This will be accomplished mainly through the school's active participation in the annual Equality Days disseminating equality policy to students and staff and hosting seminars about gender equality in the various faculties.

2) Nurturing a diverse learning environment with equal gender distribution and an atmosphere that welcomes people with disabilities, people of foreign origin, queers and other minority groups. This will be achieved, among other things, through a report on working conditions in the School, as well as follow-up actions informing faculty heads about equality issues, offering courses on sexual harassment, upholding gender quotas on selection committees, etc.

3) Taking the equality perspective into consideration when planning courses, teaching and research. This will be done, among other things, by disseminating ideas about gender mainstreaming to teachers and by interpreting research results with the situation and needs of different societal groups and minorities in mind.

School of Social Sciences, Equal Rights Policy 2010-2014

The existing equal rights policy at the School of Social Sciences is structured in similar manner to that of the School of Engineering and Natural Sciences. A key difference is that the School of Social Sciences sets forth 'premises' with their working objectives. For example, if a working objective of their gender action plan is that women and men should receive equal pay, then the premise for any measures to be carried out is that data on pay are transparent and accessible.

In other words, if these premises are not met, fulfilling these premises becomes the first working objective.

The policy at the School of Social Sciences is comprised of seven main objectives: 1) Securing equal conditions in the? selection/hiring of women, men and other groups. Examples of measures include always incorporating the equality dimension in job advertisements and collecting data on women and men for the

construction of reports that can be compared over different time periods.

2) Equal participation of women and men on boards and commissions. Measures include disseminating rules for new members of staff and analysing gendered patterns in board and commission membership.

3) Satisfactory student conditions and possibilities with the long-term goal of increasing student diversity. Measures include collecting and analysing gendered data on students as well as work against gender stereotypes.

4) Gender mainstreaming on all levels of the organisation. Measures include regular seminars on gender and diversity for staff and students.

5) An environment free of pornification and sexual harassment. Measures include seminars and meetings for staff and students about sexual harassment, bullying and the harms of sexually objectifying imagery in university culture.

6) Eradicating prejudice against minority groups. Staff must at all times be aware of not perpetuating prejudice against any minority group in society, and faculty heads must, in collaboration with the Equal Rights Committee, educate staff about such.

7) Critical review. The policy must be reviewed every three years.

A new Equal Rights Policy is scheduled for approval before the end of 2015.

3.5 University of Lausanne (UNIL)

Due to the Swiss federal system, the University of Lausanne (UNIL) is formally dependent on the Vaud Canton (population approx. 750,000). The political authority is located nearby geographically speaking and carries out regular and careful monitoring of the university. The university/canton relationship is regulated by a specific law (Loi du 6 juillet 2004 sur l'Université de Lausanne - LUL) and a series of more specific regulations.

Founded in 1537, like many other Swiss universities (such as those of Geneva, Fribourg, and Berne), the UNIL was first an *académie* dedicated to training church ministers. The *académie* of Lausanne was turned into a university at the end of the nineteenth century (1896). The original structure of the UNIL was based on the "Humboldt" model of comprehensive, multi-disciplinary universities.

Since the end of the 20th century, an ambitious project to foster greater co-operation among the French-speaking universities of Lausanne, Geneva and Neuchâtel, together with the *École polytechnique fédérale de Lausanne* (EPFL) (with which the UNIL shares its campus) has been pursued. In 2003, the UNIL created two new faculties centred on life and human sciences: the Faculty of Biology and Medicine; and the Faculty of Geosciences and Environment. The UNIL abandoned its full disciplinary coverage by transferring its mathematics, physics and chemistry sections to the EPFL, which in turn moved its social science research centres to the UNIL. This process also implied the merging of the pharmacy faculties in Geneva and Lausanne, which were re-localised and are now concentrated in Geneva. Therefore, the UNIL was restructured in 2005.

Since the adoption of the LUL by the Council of the Vaud Canton, the UNIL focuses on developing the life sciences and human and social science domains as its strategic priorities. The result is a more profiled institution, with resources concentrated on a more limited range of disciplines. For the implementation of the GARCIA Project, we therefore had to identify a department that was closest to the STEM domain, given that we did not have any more "real" STEM departments.

Since 2005, the UNIL has been subdivided into seven Faculties:
- Faculty of Theology and Religious Sciences
- Faculty of Law, Criminology and Public Administration
- Faculty of Arts & Humanities
- Faculty of Social and Political Sciences
- Faculty of Business, Management and Economics
- Faculty of Geosciences and the Environment
- Faculty of Biology and Medicine

There are currently more than 14,000 students and 3,000 full-time equivalent (FTE) researchers who work and study at the UNIL.

Figure 5. The organisational structure of University of Lausanne
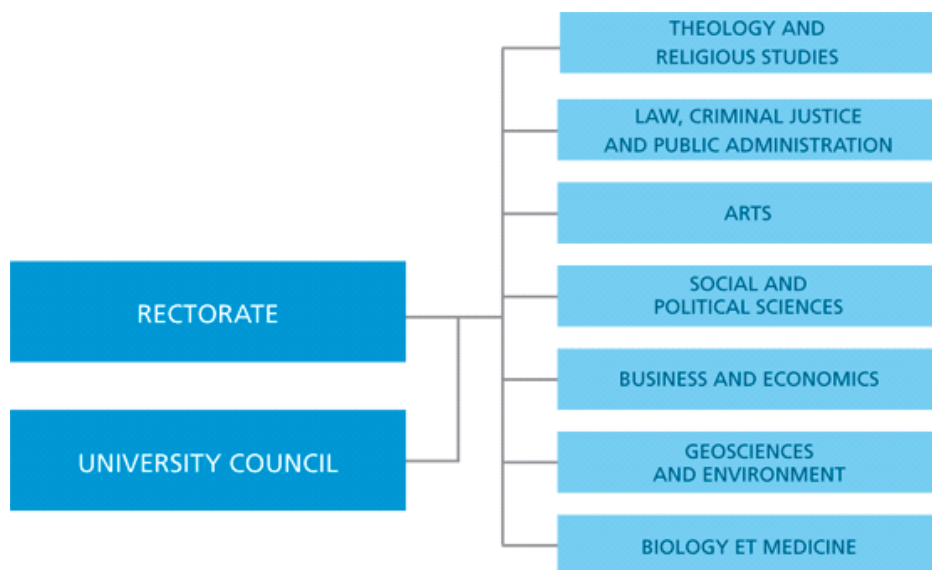
The UNIL and its seven faculties are headed by two institutional bodies: the Rectorate and the University Council. The University Council consists of 44 people who represent the different categories of university members. Swiss university members are subdivided into 4 different electoral bodies: 1) the *Corps*

professoral (CP), which includes all professors (both tenured and those on tenure track); 2) the *Corps Intermédiaire* (CI), which are non-professorial staff, but who are responsible for a large share of supervisory/research activities – basically senior lecturers and (funded) PhD students; 3) students; and 4) technical and administrative staff (PAT).

Representatives of each of these four bodies are elected within each Faculty every three years. The University Council has three main functions. First, it proposes a candidate as Rector to the Council of the Vaud Canton. Secondly, it makes recommendations on the university's financial report and adopts the UNIL's pluri-annual strategic plan. Lastly, it can also adopt resolutions on questions that concern the university. In 2015, a member of staff of the UNIL Equal Opportunity Office was elected as the first female chair of the University Council.

We chose to investigate two faculties of the UNIL for the GARCIA Project; namely our STEM department – the Faculty of Biology and Medicine (*Faculté de biologie et médecine*, hereafter FBM) – and the SSH department – the Faculty of Social and Political Sciences (*Faculté des sciences sociales et politiques*, hereafter SSP). These two faculties cover both teaching and research activities.

3.5.1 Faculties of Biology and Medicine

The FBM is divided into two sections that collaborate for teaching and research: the Section of Fundamental Sciences (*Section des sciences fondamentales -* SSF) and the Section of Clinical Sciences (*Section des sciences cliniques -* SSC). The SSF is fully integrated into the UNIL organisational structure, whilst the SSC operates in collaboration with the Vaud canton university teaching hospital (*Centre HospitalierUniversitaire Vaudois -* CHUV). In our research, we decided to focus on the SSF, because research and careers in SSC mainly focus on medicine (researchers defend an MD [medical doctor] and not a PhD thesis) and clinical (more applied) aspects of research. Moreover, the CHUV and part of the SSC have very specific administrative structures (Directors' board, HR office, etc.). The SSF is divided into 10 departments:
- Ecology and Evolution

- Fundamental Microbiology
- Plant Molecular Biology
- Physiology
- Fundamental Neurosciences
- Pharmacology and Toxicology
- Biochemistry
- Genomics
- Medical Genetics
- Oncology

3.5.2 Faculty of Political Sciences

As far as our SSH department is concerned, the SSP Faculty is divided into four institutes (the equivalent of the Departments in the STEM Faculty):

- Institute of Political, Historical and International Studies (IEPHI)
- Institute of Social Sciences (ISS)
- Institute of Psychology (IP)
- Institute of Sports Studies (ISSUL)[22]

Moreover, the SSP faculty hosts a National Centre of Competence in Research (NCCR), entitled "Overcoming Vulnerability: Life course perspectives" (LIVES). In the words of the Swiss national science foundation (SNSF):

"NCCRs aim to strengthen research in areas of strategic importance for the future of Swiss science, business and society (…) NCCRs are backed by one or more home institution. The budget for each series of an NCCR is determined by [the Swiss] parliament. In addition to federal funds, NCCRs receive funding from higher education institutions and from third parties".[23]

---

22   The ISSUL is an interfaculty structure belonging both to SSP (for activities linked to sociology, geography, history of sport, etc.) and FBM (for activities linked to physiology, biomechanics, physical activity, motor control, etc.).

23   http://www.snf.ch/en/funding/programmes/national-centres-of-competence-in-research-nccr/Pages/default.aspx#Details [retrieved 27.04.2015].

NCCRs are important research programmes financed for a maximum of 12 years (3 x 4 years, with intermediate evaluation procedures).

Source:http://goo.gl/AzcnMg [retrieved 17/09/2015]

3.5.3 Existing Gender Action Plans or Policy at UNIL

Gender Action Plan for the whole university

At the UNIL there is an existing Gender Equality Action Plan (GAP) for 2013-2016 which defines the following domains of action:
1. The establishment of gender equality in the university's structures as part of quality management.
2. Increasing the proportion of women professors (including assistant professors) and women in academic decision-making positions.
3. Support for young academics and junior researchers.
4. Work-life balance, with respect to studying at the university or pursuing an academic career, in combination with family and personal responsibilities.
5. Promoting gender equality among undergraduate students and enlarging

their choice of study fields (to combat horizontal gender segregation).
6. Gender equality in human resources management and organisational development.

This action plan is part of the fourth Federal Gender Equality programme (FGEP) named "Equal opportunity of women and men at universities/Gender Studies, 2013-2016". The main goal of this federal programme is to achieve 25% of women among full professors at Swiss universities, and 40% at the assistant professorship level, as well as an increased proportion of women in leading academic positions and decision-making bodies at universities and related institutions.

Since the beginning of the 2000s, the succession of four FGEPs have demonstrated a tangible political will to promote women's access to all levels of academic institutions. The actions and recommendations of the SNSF, the Swiss University Conference (CUS) and the Rectors' Conference of Swiss Universities (CRUS) have all contributed to various aspects of these objectives. Each of these programmes has formulated several distinct but interrelated objectives:

1. Encouraging the recruitment of more women to tenured academic positions;
2. Mentoring services for junior researchers;
3. Support for the development and institutionalisation of gender studies and research on equal opportunities and gender discrimination;
4. Measures to promote work-life balance in academic careers, including direct support for the provision of university-based day nurseries and/or emergency childcare services.
5. Since 2008, a budget has also been dedicated to dual-career couples (DCC) within the Swiss academic labour market.

The fourth stage of the FGEP (2013-2016) enabled each university to define its own priorities and objectives, in the form of a specific, tailor-made GAP, within the framework of this programme. At the UNIL, this institutionally designed plan has been further decentralised, in order to take internal (e.g. disciplinary) variations into account. Thus, each of the seven Faculties has been invited to adapt the University-level GAP (entitled "Vision 50/50") to their particular profile and needs.

Gender Action Plan at FBM faculty

The FBM faculty (the SSF of this faculty is our GARCIA STEM department) drew up its action plan entitled "ACTION for equality"[24] in the frame of a working group on equality created in 2012. One additional part-time member of staff (equality officer) was hired to carry out a survey on women in junior academic positions and then to implement the GAP within the faculty.

While the main focus of the action plan is on identifying women with "high potential" who could attain professorial positions in the future, there is also a focus on WLB in one of the main themes that reflect the problems identified by the survey (see Figure 6).

Figure 6. Main themes of the FBM Gender action plan "ACTION for equality"
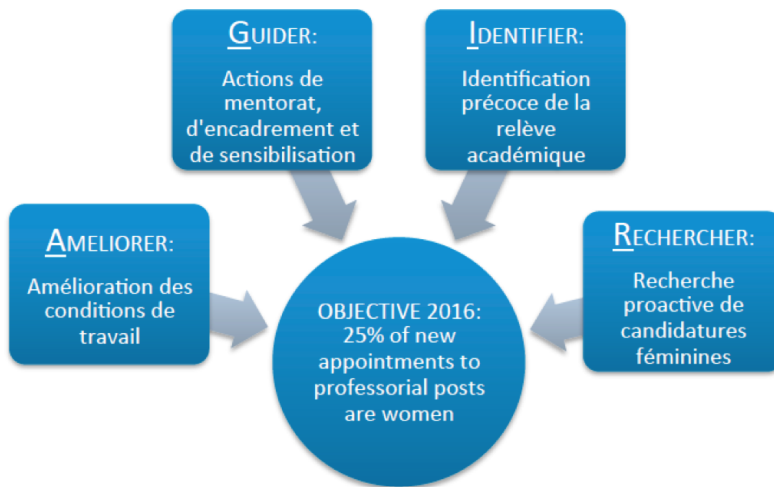
Fields of action and objective of the 'ACTIONforEquality' action plan

The objective between now and 2016 is to ensure that women represent at least 25% of candidates and all new appointments to professorial posts, with a view

---

24   http://www.unil.ch/fbm/home/menuinst/la-faculte/egalite-femmes-hommes/plan-daction-de-la-fbm.html (retrieved 24/06/2015).

25   http://www.unil.ch/fbm/files/live/sites/fbm/files/shared/egalite/EN_plan_AGIR.pdf (retrieved 24/06/2015).

to attaining a rate of 30% in six years' time. This objective must be achieved by increasing the rate in each recruitment category (competitive selection, promotion to the rank of Associate Professor, tenure-track appointments). The objective is ambitious, since it means increasing the current rate of feminisation by 50%. This objective is, however, judged as "achievable by focusing efforts on four priority areas.

The 'ACTIONforEquality' action plan therefore has four themes, which by and large reflect the problems identified in the survey:

IMPROVE: Improve working conditions. The aim is to create conditions that make it easier to reconcile work with family life. One particularly urgent requirement is that of childcare provision (crèches, nurseries, childcare out of school hours) and cost.

GUIDE: Mentoring, supervision and awareness-raising. The aim is to establish mentoring as good practice and raise awareness in the FBM of the equality question generally.

IDENTIFY: Early identification of academic potential. This theme is particularly important in the SCC, where many careers are built over time within the section. It seek to provide better support to the next generation of female academics in both sections, thereby contributing to a greater number of women professors originating from the UNIL. The aim is to systematically identify individuals with high potential, particularly women, and provide them with mentoring and coaching measures, in order to improve their chances of promotion.

SEARCH: Search proactively for women candidates. This theme is important in the SSF and SSC for all competitive appointments to a professorial post. The aim is to promote the recruitment of women when candidates are invited to apply for professorial posts.

A second objective is that the empirical indicators devised to evaluate these four

themes, still to be determined, should show an improving annual trend.[26]

Gender Action Plan at SSP faculty

The SSP Faculty has one of the highest rates of female professors in the whole of Switzerland (36% in 2015, as against a national average of 21%) and women are also well represented amongst the PhD students (60% of the funded-PhD assistants, for example). Contrary to the situation in the STEM department, the Faculty gives the illusion of having achieved gender equality (over 53% of all staff are women), despite a very unequal distribution of women at the different hierarchical levels. Thus, at the top the academic career structure there is still a clear problem with vertical segregation, since women make up 40% of all associate and tenure-track professorships, but only 28% of full professors.

Given the "egalitarian appearance" of the Faculty, it has been rather more complicated to mobilise the decision-making bodies of the SSP Faculty around the definition of a tailor-made GAP. An internal working group was set up in 2013, under the responsibility of the Vice-Dean in charge of early academic careers. A provisional GAP was produced and adopted by the Faculty Council the following year, but a number of the concrete measures envisaged in this document were judged "unworkable" by the Rectorat's Office, notably because they contravened university regulations on hiring practices, promotions or career management. Unfortunately, the Vice-Dean in charge of revising this first version of the GAP fell ill and was not replaced, leaving the Faculty without a strategic action plan to put into practice.

The SSP Faculty was nevertheless quite active on the gender equality scene at the UNIL more generally, notably through close collaboration with the UNIL Equality Office on a number of "gender awareness training sessions" organised through the equality programme of the LIVES NCCR Centre of excellence.

In 2014, under some pressure from the Rector and the Gender Equality Office, the Faculty set up a new working group, under the chair of an associate professor in gender studies, which was requested to revise the previous GAP. In order to

---

26   "ACTION for equality", p. 3-4

achieve this objective, the new working group (made up of representatives of all of the Faculty's staff categories) decided to administer a questionnaire similar to the one previously used in the FBM and other faculties as a basis for their own Action Plans. This process took quite a lot of time and energy, but yielded some interesting results, notably concerning the quite high levels of perceived discrimination among the intermediate levels of female academic staff. However, once again, the report produced by this working group, which was presented to the Faculty council in June 2015, did not include a precise "Action Plan", only some recommendations about possible areas of intervention. The duty of finalising this document has since been delegated to the new Vice-Dean in charge of early academic careers and equality.

Therefore, although the SSP Faculty still does not have an official GAP that could be considered equivalent to the 'ACTION for Equality" initiative of the STEM department, one could argue that equality issues are actually more visible and more central to the concerns of the Faculty than in other disciplinary environments of the UNIL.

3.6 Research Centre of the Slovenian Academy of Sciences and Arts (ZRC SAZU) and Biotechnical Faculty, University of Ljubljana

The Slovenian team examined the gender culture and implemented actions in two separate GARCIA organisations because the Research Centre of the Slovenian Academy of Sciences and Arts (ZRC SAZU) does not have a STEM department suitable to obtain accurate results and only carries out research. For this reason, the Department of Agronomy from Biotechnical Faculty, the University of Ljubljana chosen as STEM institution. Consequently, presented in what follows are two GARCIA organisations where discussions for the Gender Action Plan (GAP) were conducted with research staff (A-B-C-D) in order to guarantee successful implementation of the planned activities.

3.6.1 Research Centre of the Slovenian Academy of Sciences and Arts (ZRC SAZU)

The Research Centre of the Slovenian Academy of Sciences and Arts (ZRC SAZU) was established in 1981, even though the majority of the institutes under the aegis of the Slovenian Academy of Sciences and Arts had already been operating several decades earlier. ZRC SAZU has become one of the leading research and educational centres in Slovenia, and is completely comparable with the most prominent academic institutions in central and southeast Europe.

More than three hundred associates are organised into eighteen independent but coordinated and interconnected institutes. Work at ZRC SAZU is distinctly interdisciplinary and based on cooperation, complementation, and synergy. The diverse research areas can be summed up in the study of cultural, social, and natural phenomena, processes, and practices. The results are visible not only in research and discussion articles, as well as general-interest publications, but also documentaries, promotional films, maps, CDs, posters, exhibitions, and websites.

The research network of the ZRC SAZU consists of researchers working at eighteen ZRC SAZU institutes:

- the Anton Melik Geographical Institute,
- Institute for Culture and Memory Studies,
- Fran Ramovš Institute of the Slovenian Language,
- France Stele Institute of Art History,
- Institute for Cultural History,
- Institute of Anthropological and Spatial Studies,
- Institute of Archaeology,
- Institute of Ethnomusicology,
- Institute of Musicology,
- Institute of Philosophy,
- Institute of Slovenian Ethnology,
- Institute of Slovenian Literature and Literary Studies,
- Ivan Rakovec Institute of Palaeontology,

- Jovan Hadži Institute of Biology,
- Karst Research Institute,
- Milko Kos Historical Institute,
- Slovenian Migration Institute,
- Sociomedical Institute.

ZRC SAZU also established three regional research stations — the Maribor research station, Nova Gorica research station, Prekmurje research station — which connect the research network across Slovenia from west to east.

The institutional vision and strategy is to conduct basic research as part of national research programmes, national basic research projects, international projects, and excellence centres. ZRC SAZU also carries out a series of applied projects that extend beyond the narrow orientation of individual specialized areas and make valuable links among various institutes and disciplines possible. Numerous achievements prove that research findings in the humanities are also useful for preserving natural and cultural heritage as well as for finding solutions to concrete problems. The most important achievements include developing strategies for a responsible attitude towards natural, cultural, and living heritage (e.g. environmental impact studies, vulnerability studies, water-resource management, providing professional support in building infrastructure and motorways, developing methodology and prevention or intervention programmes for the mentally handicapped and enforcing EU heritage-protection policies).

Together with the University of Nova Gorica, the ZRC SAZU offers several undergraduate and graduate academic programmes: Karst Studies, the EU Master's Programme in Migration and Intercultural Relations (Erasmus Mundus status), and Cultural History. ZRC SAZU has also founded an independent Postgraduate School ZRC SAZU with a doctoral study programme in Comparative Studies of Ideas and Cultures that was accredited and recognized in December 2013.

The institutional infrastructure includes the ZRC Publishing House, which is the largest publisher of literature in the humanities, publishing fifteen journals (five of them listed on the Thomson Reuters indices) and fifteen book series. The ZRC SAZU institutional infrastructure also includes the Azil Bookstore, the ZRC Atrium

events venue, and the Geographical Museum. The infrastructure supports the research activities by providing photo, video, and audio documentation, as well as laboratory services, which make it possible to analyse the data, measurements, and samples collected in order to evaluate and synthesise the research findings.

Figure 7 . The organisational structure of ZRC SAZU
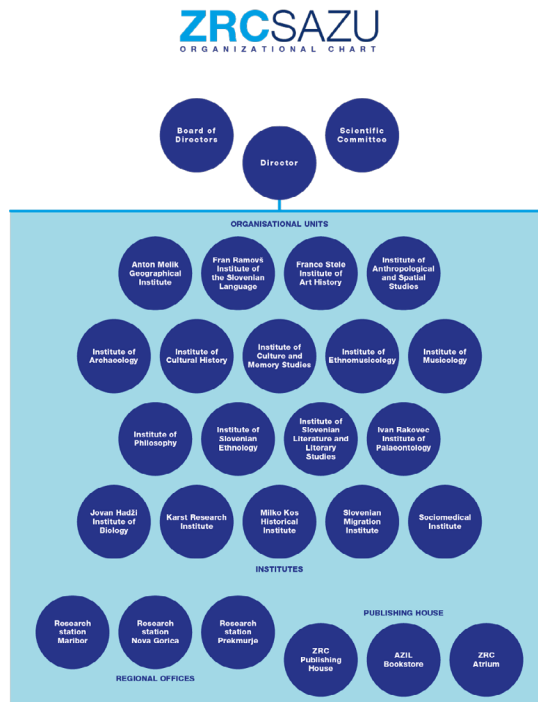
The decisions of ZRC SAZU are made by the director and two assistant directors. The ZRC SAZU Board of Directors handles and adopts the institute's general acts, programmes, and reports; it adopts the financial plan and decides on the initiatives by the ZRC SAZU Research Committee, appoints the director, and approves appointment of other senior management and research staff at ZRC SAZU with special authorization. The ZRC SAZU Scientific Committee designs the research programme and handles other professional matters of ZRC SAZU. The Research Centre also has an International Advisory Board (IAB), which was established in 2011. At regular meetings (every two years), the IAB not only discusses the inventiveness and project results, but also tries to envisage possible changes and opportunities in managing and performing research work.

The Fran Ramovš Institute of the Slovenian Language

The Institute of Slovenian Language (ISJFR) was established in 1945 for the purpose of compiling linguistic materials and using them for the creation of basic Slovenian language resources: a dictionary of orthography and pronunciation; a dictionary of standard Slovenian; descriptive and historical studies in linguistics; an historical-onomastic dictionary; an historical-topographical dictionary; a linguistic atlas; monographs on texts in various dialects; and phonogrammic archives of dialects. The ISJFR has been re-organised several times. Since the establishment of ZRC SAZU in 1982, it has included four sections, but today the work of researchers is organised in six sections:

- Lexicological Section;
- Etymological-onomastic Section;
- Section for Historical Dictionaries;
- Dialectological Section;
- Terminological Section;
- Corpus Laboratory.

Each section has its head and staff. In 1986, the Institute was named after its first Head, Academician Dr. Fran Ramovš. Recently, the Institute's basic research has focused on the Slovenian language, both past and contemporary, and the extensive compilation of unique materials, important for linguistics studies at national and international level. Research results are employable in various other academic fields and professions.

Source: http://www.zrc-sazu.si/sl/novice/predstavitev-novih-knjiznih-izdaj-zalozbe-zrc

3.6.2 Biotechnical Faculty of the University of Ljubljana

The Biotechnical Faculty has been an integral part of University of Ljubljana from its very beginning (1907). The fundamental mission of the faculty is to provide university level, advanced professional, and postgraduate education, as well as to carry out scientific research and technical and consulting work concerning the sciences of living nature (biology, microbiology) as well as agriculture, forestry and fisheries (forestry, animal husbandry, agronomy) and the related production technologies (wood technology, food technology, biotechnology). The common denominator of all academic and scientific disciplines at the Biotechnical Faculty is natural resources (soil, physical space, flora, fauna, and water).

Due to its orientation towards studying natural resources and the sustainable management thereof, the Faculty is one of those societal institutions that every country needs in order to form and maintain its identity. Research and education in life sciences and nature confers on the Biotechnical Faculty a considerable share of responsibility regarding the creation of the relevant professional and scientific foundation and the promotion of a social atmosphere that ensures the sustainable and harmonious cohabitation of man and nature.

The main goal of the educational programme is to educate - based on the Faculty's own research and other achievements - professionals highly skilled in the management of natural resources and the related production technologies. The programme includes undergraduate and postgraduate studies, as well as a variety of forms of informal education, enabling the acquisition of basic knowledge for work as well as for research activities, and the constant updating and broadening of such knowledge.

The Faculty's mission is pursued by its academic community of teachers, researchers, other staff, and students, who are responsible for maintaining and contributing to the Faculty's activities with their initiative, persistent work, expert knowledge, and quality of work results.

The organisational network of the Biotechnical Faculty consists of nine departments:

- Department of Agronomy;
- Department of Biology;
- Department of Forestry;
- Department of Landscape Architecture;
- Department of Wood Technology;
- Department of Animal Science;
- Department of Food Science and Technology;
- Department of Biotechnology;
- Department of Microbiology.

The Biotechnical Faculty is headed and represented by the Dean, who is its scientific leader. Two Associate Deans help the Dean in decisions.
The governing bodies of the faculty are:

- Dean;
- Senate;
- Academic Board (according to the Statute of the University of Ljubljana and the Rules of the Biotechnical Faculty, the members of the Academic Board are 100 pedagogical employees and 25 students);
- Administrative Board;
- Student Council.

The Faculty Senate makes decisions about study programmes, master and doctoral theses, elects members to teaching posts, adopts regulations on study, etc. Internal organisational units of the Faculty are departments, chairs, special units, secretariats of the departments and faculty. The organisational bodies of each department are the Associate Dean for the field covered by the department and Department Senate. Chair is the basic organisational unit of teaching, scientific research and professional work carried out by the department.

Department of Agronomy

The teaching and research staff at the Department of Agronomy performs extensive fundamental, applied, and developmental research work. The main research challenges concern the structure and function of agro-ecosystems in different pedoclimatic conditions, the soil in terms of its composition, properties, fertility, water regime, and pollution, in order to facilitate agricultural production

and sustainable management of agricultural land, to advance knowledge in the fields of botany, zoology, microbiology, genetics, plant breeding, plant protection, agro-meteorology, and agro-technology and apply them in sustainable agricultural production, to develop and improve agricultural technologies and implement them in sustainable production, to preserve the population of rural areas and activities such as crop production, grassland and pasture management, fruit, viticulture and vegetable production.

The research team under the Chair of Phytomedicine, Agricultural Engineering, Field Crops Production, Pasture and Grassland Management, which would like to join the CORE Organic Plus, has extensive research experience and interests in environmentally acceptable practices of crop management and plant protection. Recently, it has been mostly investigating natural resistance (glucosinolates, epicuticular wax, colour) of vegetables and field crops to insect pest attack, testing different environmentally acceptable methods in controlling field crop pests (wireworms, Colorado potato beetle, cereal leaf beetle, thrips etc.) under field (such as biofumigation, intercropping, wood ash, essential oils etc.) and laboratory conditions, studying the occurrence and efficacy of indigenous elements (such as entomopathogenic nematodes and fungi, parasitoids, predatory mites etc.) beneficial in controlling important pests of cultivated and wild-growing plants, testing the potential synergism between environmentally acceptable control methods. In the field of phytopathology, it is studying the distribution and economic impact of Fusarium species on winter wheat. In regard to grassland management, the group investigates the specific relationships between grass sward and soil parameters on sown and native grasslands, as well as the interactions between grazing animals and herbaceous plants on karst pastures. In general, the research team has a great deal of research experience and achievements in investigating the interactions between the organisms and other elements in agro-ecosystems.

3.6.3 Existing Gender Action Plans or Policy at ZRC SAZU

In Slovenia, policies and practices to establish gender equality have a long tradition since the end of the 19th and the beginning of the 20th centuries, when

women were encouraged to complete university education. At present, the Equal Opportunities Department within the Ministry of Labour, Family, Social Affairs and Equal Opportunities conducts the gender equality policy and its mainstreaming at ministerial level. Until recently, the Equal Opportunities Department organised numerous training courses, but in the aftermath of the economic crisis, its financial resources have been limited. Especially the Commission for Women in Science at the Ministry of Education, Science and Sport, which was founded in 2002, regularly highlights gender issues in Slovenian science and research.

However, the gender issue in scientific organisations has not been considered as much as important aspects of internal policy, research strategies, etc. Gender-equality offices and gender action plans are not known in all four Slovenian universities and research institutions. Apart from the Commission for Women in Science, there is a lack of Equal Opportunity Commissions (or equivalent bodies) at the institutional level and subsequently at the GARCIA selected institutions.

Gender action plans are nearly not known in HE and Research institutions in Slovenia. The only bright spot is the National Institute of Chemistry (NIC), which was in the period 2011–2014 involved in The Genis Lab project: institutional changes for women's participation in science (the Seventh Framework Program), where they developed and implemented the Tailored Action Plan, prepared as one of the project's results. NIC Tailored Action plan was formulated primarily on recommendations in the Participatory Gender Audit Report from 2011.

Its purpose and objectives were to formulate regulations and implement gender issues in the internal rules to set up gender sensitive system in the institution through the following activities:

Monitoring System: they establish a simple system to monitor career trends of women and men scientists (recruitment, promotions, type of contract, specialization/education).

Performance evaluation: they re-assessed the current criteria and procedure for recruitment and evaluation of academic excellence in a gender perspective, which could include more formal and standardized ways to assess "soft skills",

social dialogue and interpersonal relations among co-workers. Furthermore, they considered a more flexible implementation of the one-year-abroad rule.

Peer support, coaching and role-modelling: in the framework of this activity they undertook and implemented the positive and realistic female manager role-modelling and improved informal and formal procedure for conflict prevention, mediation and resolution.

Work organisation and family responsibilities, Awareness-raising: they promoted an objective assessment – monitoring of perception of reconciliation of family and work-life.

Information facilities – the "Gender and Science" corner has been created, exploiting all the established ways of communicating with employees – via internet, information boards, posters. They promoted a social dialogue and prepared graphic campaign on stereotypes.

Financial aspects, resource allocation: they established a monitor system for examining "project success rates" by gender and allocation of funds.

After the project conclusion (dec. 2014), the National Institute of Chemistry has continued the practices on gender equality (monitoring, evaluating) and worked on internal policy on gender equality in research. They has also encouraged social dialogue and further improved organisational climate workplace, acted on organisational culture and perception of stereotypes in science.

Regarding STEM and SSH test institutions, none of them have gender action plan. However, interviews with managerial and research stuff significantly increased awareness about the need of the gender-sensitive approach in decision making, managerial and financial bodies, since we detected not just a lack of equal opportunities bodies but also the total lack of the relevance of gender-sensitive policies, particularly in the case of Biotechnical faculty, University of Ljubljana (STEM institution). Although the both GARCIA institution are public organisation and follows national equal opportunities policies and non-discriminating employment policies, Research Centre of Slovenian Academy of Science and

Arts (SSH institution) signed two documents that determine the area about gender equality: European Charter for Researchers and Code of Conduct for the Recruitment of Researchers.

According to all presented, the need to raise awareness about gender in test institutions and broadly in Slovenian academia is of high importance. To show worsen pictures about the current stance on gender-related actions in HE and research institutions in Slovenia, in this report we also provide the notes of informal workshop with research staff (A, B, C, D) from both GARCIA institution.

4

Examples of gender action plans

The GARCIA Project foresaw the implementation of self-tailored Gender Action Plans in each participating institution in order to foster the necessary structural changes on the basis of each specific situation and relative challenges. All beneficiaries would follow the same action plan and would be involved in the implementation process of all of the planned tasks in one STEM and SSH department. The sole exception was represented by Austria, which does not implement any action within its research centre, but participated in the mapping of the labour market and policies at national level and offered its skills and experience in evaluation and assessment of the actions implemented.

Hereafter we present the standard structure of the Gender Action Plan of all the beneficiaries involved in the GARCIA Project. The following section provides some detailed examples of actions implemented by the GARCIA beneficiaries. It presents the main aims, integration with already-existing policies, actors involved, target, processes of implementation, and a summary table indicating responsibilities and timetable. In particular each GARCIA partner presented two actions of its self-tailored Gender Action Plan based on the GARCIA Project's aims.

To be noted is that, in order to create the Gender Action Plan, we involved both actors at different levels in research organisations and external stakeholders.

4.1 Standard structure

Action 1 - Mapping labour markets and policies at national and local level

Rationale: In order to devise self-tailored actions to tackle gender asymmetries in a university/research centre, it was important to know the structure of opportunities and constraints offered by the national/local welfare regime and its specific gender implications.

Actions: Threefold mapping: activity rates and employment patterns of women; policy measures which may impact on work and personal life experiences, and national frame policies focused on five main domains: education policies and practices; employment and labour market policies and practices; family-formation practices and policies; care & work-life balance policies and practices; equal opportunity / anti-discrimination / diversity policies and practices.

Outcomes: Quantitative results to draw up recommendations on how to improve the efficiency and effectiveness of the policies directed at women in the university/research centre and in the broader context. Dissemination of the results among the policy makers – interested in research and academic issues – at national and local level.

Long term impact: Providing a useful picture of the national context that could serve to raise awareness among other universities.

Action 2 - Structural organisational analyses

Rationale: The first step in a process of organisational change from a gender perspective is to raise awareness among academic staff about gender asymmetry at the different career levels. It is also useful to obtain a comprehensive picture of the gender-sensitive initiatives undertaken at the university/research centre.

Actions: First, developing tools to collect and extract relevant statistics concerning research staff, with a particular focus on early career stages. Second, mapping existing research projects and curricula. Both actions were conducted in two departments of the university/research centre (one from STEM and one from SSH disciplines).

Outcomes: Relevant gendered statistics and a map of the gender dimension in curricula and research in the departments involved.
Long term impact: Integration of a gender perspective into research and teaching at the university/research centre.

Action 3 - Organisational culture and everyday working life

Rationale: Gender asymmetries are often produced and reproduced through everyday, apparently "neutral", practices. It is therefore important to reveal and deconstruct the symbolic order and the micro-organisational gender practices in the organisational contexts.

Actions: Analysis of documents. Interviews with postdocs (or positions that in both selected departments were temporary, without prospects of a permanent contract) and assistant professors (or the positions that were either tenure track or the first permanent academic position) in the STEM and in the SSH department. Mapping of existing work/life balance policies.

Outcomes: Analysis of qualitative data and organisational policies in the two departments selected.

Long term impact: Greater awareness in university/research centre about the relevance of the gender culture in shaping scientific careers and organisational practices.

Action 4 - Integrating a gender perspective into research and teaching

Rationale: Need for greater awareness among academic staff about the integration of the gender dimension in research contents and students curricula.

Actions: Toolkit for implementing gender-sensitive research and teaching. Training course or other awareness-raising initiatives for the academic staff on the integration of a gender perspective into research and teaching.

Outcomes: A toolkit for integrating a gender perspective and a report on strategies to integrate a gender perspective into research and teaching.

Long term impact: A better integration of the gender perspective in research and specific courses on gender studies for undergraduate, graduate and PhD students both inter- and intradepartmental.

Action 5 - Making management and decision-making processes gender sensitive

Rationale: Existing management practices and financing procedures do not systematically comprise a gender dimension. It is useful to adopt gender-responsive budgeting.

Actions: Analysis of the gender composition of the committee concerned with decision-making in the two departments selected. Drawing up guidelines.

Outcomes: Guidelines and toolkit to analyse the gender composition of decision-making bodies and to integrate gender budgeting.

Long term impact: Awareness among the departments selected and, more broadly, among the university/research centre management levels, of the gains and the advantages of integrating gender budgeting through recommended procedures.

Action 6 - Mapping the leaky pipeline

Rationale: To better understand the leaky pipeline mechanism; that is, to focus on researchers who have left academia.

Actions: Mapping of the leaky pipeline in the university/research centre compared with national/local data from Action 1. In the two target departments, to design, distribute and analyse a web survey addressed to: 1) researchers who had worked in the past in the departments involved and then left them; 2) researchers in the early stages of their careers who were working in the departments involved.

Outcomes: Socio-demographic chart of the characteristics of researchers susceptible to leaving the university/research centre.

Long term impact: Awareness in the university/research centre and among other research organisations of the importance of the contextual background in acting against the leaky pipeline.

Action 7 - Giving voice to target people

Rationale: Understand the difficulties that women may have encountered at the university/research centre and the reasons that may have forced them to leave it.

Actions: Interviews with postdoctoral fellows who had left the university/research centre.

Outcomes: Qualitative analysis of the leaky pipeline at the university/research centre.

Long term impact: Awareness within the university/research centre and other research organisations of the leaky pipeline phenomenon and the need for specific action to tackle it. Retention at the university/research centre of more postdoctoral female fellows.

Action 8 – Meta-analysis and creation of the leaky pipeline typology

Rationale: On the basis of research results, we developed the a transnational typology depicting different Leaky Pipeline profiles.

Actions: Elaboration of a transnational typology of mechanisms that act upon the leaky pipeline based on quantitative and qualitative analysis by each beneficiary.

Outcomes: A useful innovative instrument applicable at the university/research centre and among the beneficiaries.

Long term impact: Promotion of a holistic perspective on the scientific career organisation by taking the experience of those who leave academia into consideration.

Action 9 – Mentoring Activities

Rationale: Efforts to create better research environments from the early stages of the career to retain women require consolidation through mentoring activities.

Actions: Implementing mentoring activities at the local context, by collaborating with already existing mentoring activities and by using classical and/or more innovative approaches to mentoring.

Outcomes: Objective and subjective resources for women researchers wanting to pursue academic careers at the university/research centre.

Long term impact: The mentoring activities will be extended to other departments of the university/research centre and for a long-term period, becoming an integral part of the training for starting researchers.

Action 10 - Mapping formal criteria/actual practices in recruitment procedures

Rationale: Previous research shows that the criteria used to evaluate academic excellence are not gender neutral.

Actions: Mapping the formal criteria used in job descriptions in the two departments selected; focus groups with recruitment and selection committee members; analysis of appointment reports.

Outcomes: Empirical data showing the features of the gap between formal criteria and actual practices in the units selected.

Long term impact: Awareness among committee members that gender stereotypes influence the supposedly "objective" concept of excellence.

Action 11 - Understanding and changing gender biases in the construction of excellence

Rationale: The social construction of excellence can be observed by shifting the attention from administrative rules to real situations of selection

Actions: Reconstruction of actual recruitment procedures at the STEM and SSH departments; analysis of data from focus groups.

Outcomes: Material highlighting gender biases and recommendations for countering them in the departments selected.

Long term impact: Spreading the awareness about the existence of gender biases in the evaluation of excellence in all university/research centre departments.

Action 12 - Raising awareness of committee members and candidates

Rationale: Awareness of gender relevance is a factor crucial for changingstructural biases in evaluation procedures.

Actions: Implementing reflexive work groups with committee members from the two departments selected; workshops with candidates.

Outcomes: Specification of the actual criteria used for evaluation in the target disciplines/departments, and the proposal of alternative criteria for evaluation according to the target disciplines/departments; better preparation and awareness of women candidates for selection procedures.

Long term impact: Dissemination of tools to counter gender bias in evaluating excellence at the university/research centre departments

Action 1
Mapping the gendered structure of labour markets and employment and parental policies at national and local level (Switzerland)

Policy
Mapping labour markets and policies in Switzerland and at the local/regional level (i.e. the Vaud canton for the University of Lausanne).

Main aims
The main objective of this action was to pinpoint the role of the context in structuring the career opportunities of women (and men) in the early stages of academic occupations, in order to develop self-tailored action plans for equality taking national, regional and local specificities into account. The action was premised on the need to analyse the societal and institutional environments of

young scientists in terms of the structure of opportunities and constraints offered by various "welfare", "gender", "care" and "employment" regimes in different European countries. Therefore, data had to be collected at national, regional and local levels, in order to:

- Identify whether or not gendered employment patterns in higher education and research differ from those in other labour market sectors, and if they are different for men and women, for parents and single persons, etc.;
- Identify whether or not the country has a homogeneous social structure, value system and legislative framework, or if there are differences among linguistic regions, ethnic groups, generations, or other significant types of social stratification.

For the GARCIA Project, we constructed the data collection guide in order to facilitate comparison among the various countries involved in the project (Austria, Belgium, Iceland, the Netherlands, Slovenia, Switzerland). For more information see Le Feuvre 2015.

Involved actors
Administrative and research staff at the National Statistical Office, at the National Research Council, and at any other institution that processes statistical data relevant to academic careers.

Target group
The population of young scientists in the local institution and at national level, with a particular focus on early postdocs. The purpose was to identify the opportunities and constraints faced (particularly by women) during this phase of their academic careers.

Implementation process
The implementation process moved through six steps:

1) Desk-based analysis (secondary data collection) of available documentation and literature review (including official reports and academic papers) regarding academic careers and the societal and institutional environments in which they

are embedded.

2) If required, additional local and sector-level information may also be obtained through expert interviews with key informants.

3) Compilation of a data collection guide including data at national, regional and local level that can be updated as required.

4) On the basis of the data collection guide: Mapping national welfare, gender, employment and care "regimes" with particular attention to their potential impact on women's career opportunities, in academia and elsewhere.

At least five main domains should be addressed:
   a. Education policies and practices;
   b. Employment and labour market policies and practices;
   c. Family-formation practices and policies;
   d. Care & work-life balance policies and practices;
   e. Equal opportunity/anti-discrimination/diversity policies and practices.

5) Drafting an historical time-line for the adoption of the most significant equal opportunity/anti-discrimination legislation/measures (1) generally and (2) with particular reference to academic institutions, academic careers, academic decision-making, etc., including information about funding, enforcement and evaluation provisions.

6) Analytical evaluation of the effectiveness of existing equal opportunity/anti-discrimination legislation/measures, both generally and in relation to academia.

Managing resistances/obstacles

The most important obstacle to overcome was explaining the need to put the local situation into a broader perspective. In some cases, vital data may simply not be available (for example, the parental status of academic staff members is not collected in the HR database at the UNIL).

Expected outcomes

The data collection guide enabled each partner institution to analyse the extent

to which the academic employment sector was congruent with or deviant from the societal gender regime. In the case of a comparative analysis, it becomes possible to identify the structural characteristics of the sexual division of labour in different national contexts and to suggest how this may affect women's access to, and experiences of, academic professions (for an example of such analysis, see Le Feuvre 2015b[27]). The results of this analysis will be transmitted to stakeholders (national and local policy makers, decision-makers in academia and research, etc.) in order to explain the importance of the context and social policy environment in shaping women's (and men's) academic career patterns and experiences. In addition to these results, recommendations will be made on how to improve the effectiveness of equal opportunity policies in the Swiss context.

Sustainability of the action after its conclusion

Once the data collection guide has been drawn up, the information will be easily updatable on a regular basis.

Timetable of implementation

Task/Month	1	2	3	4
1 + 2. Data collection and interviews	■	■		
3. Compilation of the data collection guide		■		
4. Mapping the gender regime			■	
5 + 6. Drafting the historical time-line of national and local equal opportunity policies + evaluation				■

---

27   Le Feuvre, Nicky. 2015. Comparative Policy Background Report, GARCIA working papers, n.3, University of Trento.

Action 2
Structural organisational analysis (Belgium)

Policy
Structural organisational analyses of the Université Catholique de Louvain (UCL).

Main aims
To develop organisational strategies to increase awareness of the importance of integrating a gender perspective into policy making, research and students' curricula in academia. This was realized through the following steps:

1) Developing tools to collect and extract relevant statistics concerning researchers. This served to gain information about the distribution of women and men in different positions within the particular institutional and departmental context. This task was partly undertaken in conjunction the WP6 organisational mapping of the leaky pipeline. Same statistics were gathered and used to create a format table for each Garcia partner.

2) Existing research projects and curricula were mapped in order to gain insight into whether there exists a gender dimension within ongoing research projects in both departments, as well as within teaching. Both actions were conducted in two department units of the UCL (one from STEM, which will be "Earth and Life Sciences" and one from SSH, namely the "Institute for the Analysis of Change in Contemporary and Historical Societies").

Mapping included qualitative and quantitative analysis of research projects and curricula at two test institutions during the year 2013, and, if available, the analysis of gender structure of project teams, lecturers and students. Identification was made of the presence/absence of the gender dimension in ongoing research projects (e.g. from the project outline, web presentation, project summary), research content and curricula, focusing on objectives, tasks, methodology, theoretical background and expected results.

Involved actors (at institutional and/or local level)

For the first part of this action, in order to develop tools to collect and extract relevant statistics, the Belgian Garcia researchers received help from the HR services of UCL, of which we initially had a meeting with the head to discuss how to proceed in order to assemble/create the data required. After this meeting we were assigned two administrative workers within the HR department responsible for dealing with personnel profile data and configurations. Four joint work sessions with a Garcia researcher and these two HR workers were then undertaken to assemble/generate the required data, where this was possible via the UCL HR web system, and to create a table. These data were highly confidential and we did not have indiscriminate access to the profiles of researchers; we had to be in the company of the HR workers in order to generate/process the information extracted.

Furthermore, two workers at the financial department of UCL were asked to generate/extract data about project funding types and amounts and the gender distribution of project budgets.

Target Group

All the research and teaching staff of the two departments selected.

Implementation process

Months 1 – 6

1) Development of tools to collect and extract relevant statistics (4.1.1).

These tools were developed in the UCL case with the help of two HR administrative workers who generated, jointly with a Garcia researcher, the relevant statistics on researchers generally for UCL, and particularly for the two given departments IACCHOS and ELI. A table was created, which had some gaps because certain data were not retrievable or too confidential.

Months 7-12

2) Continued development of tools to collect and extract relevant statistics (4.1.1).

The two workers at the financial department, jointly with the Garcia researcher, generated data on project budgeting. And there was work to extract relevant statistics, also done jointly for WP6.

Start: Mapping of existing research/projects/courses/curricula using a gender

perspective in the IACCHOS (Institute for the Analysis of Change in Contemporary and Historical Societies, i.e. Social Sciences) and ELI ("Earth and Life Sciences") departments (4.1.2).

To this end, the curricula programmes were analysed by the Garcia researcher to discern a gender dimension in teaching; for this purpose the guidelines provided by the WP4 leader were used. At the same time, an inventory of projects with a gender dimension was established for SSH.

Months 13-18

3) Continued development of tools to collect and extract relevant statistics (4.1.1).

Continued mapping of existing research/projects/courses/curricula using a gender perspective in the IACCHOS and ELI departments (4.1.2)

Managing resistances/obstacles

1) First part of action, collecting and extracting relevant statistics: we encountered some hurdles in assembling data on researchers/academics in the UCL case because the HR databases were not always accessible to us for anonymity reasons. In collaboration with two HR service workers however, we were able to create new sets of data concerning the profiles of researchers/academics, figures on exits, employment status, promotions, leaves, etc. This data assemblage/ creation was quite a lengthy process and not always easy for the HR service workers helping us, because they did this during their working hours (without any further remuneration).

Moreover, some data on teaching corps and numbers of Postdocs/PhDs were not available for the two departments and could only be assembled at the level of the entire institution, if at all.

2) For the second part of the action, mapping gender dimension in curricula and research: the main obstacles were that the UCL server that allowed us to locate or determine a gender dimension in curricula and research for SSH did not permit this for the STEM department. Firstly, the structure itself of the interdisciplinary departments, which are made up of five research poles, with different faculties within each pole, did not permit any systematic inventory of

gender-related teaching or location of research projects. The UCL server simply did not elicit any results for "gender-related" topics in the case of STEM projects.

We would have technically had to contact all researchers/academics within ELI to ask them personally if they were involved in "gender-related" issues. However, this proved to be impossible given the time frame for this task; and also from a human resources point of view, we did not have enough persons on the team to carry out such an extensive task, which in itself could constitute a PhD or postdoctoral project. This represented a major challenge to the Belgian research team in terms of completing this task: however, this gap in information was tackled by incorporating into WP4/WP6 interview questions to researchers/academics about the gender dimension in teaching and projects. This enabled us to garner some important information about the gaps and lack of gender dimension visible and paid attention to in the STEM department.

This allowed us to locate the space/type of gender action plan that should be devised specifically for this task: i.e. inclusion in the UCL server and search engines of the option to search for gender dimension data. As regards teaching, the SSH department and some specific groups of gender researchers/academics have attempted to join together courses that tackle different SSH and STEM fields from a gender perspective. However, this is a very local and sporadic attempt, which is still too feeble to be systematic; but it can be taken as an example of how joint SSH/STEM fields can collaborate on creating gender-sensitive courses. However, within the gender action plan and the toolkit, there is a specific focus on introducing the gender dimension into STEM fields, which is still lacking at UCL.

Some preliminary results from the mapping WP4 report and data were used in an internal seminar for SSH and also for an internal meeting with the vice-rector of personnel, representatives of departments, representatives of academic/scientific corps and trade unions. However, there was not sufficient time to dedicate to this particular aspect of the project because the entire project structure, objectives and preliminary results, with a focus on doctorate/post doctorate researchers were presented, not leaving enough time for the gender dimension in teaching/research.

Expected outcomes

Tools to collect and extract relevant statistics in a gender perspective were developed. Data on student and staff in the form of gendered figures and statistics were disseminated. UCL communities were sensitized to gender statistics.

A map of the gender dimension in curricula and research

Specific attention to this action should also be paid within the focus groups set up to discuss/initiate the themes in both departments; hence specific groups should be invited to specific sessions on this topic.

Sustainability of the action after its conclusion

The development of tools to collect and extract relevant statistics in a gendered perspective could also be useful for monitoring the university staff in the future.

Similarly the map of the gender dimension in curricula and research is useful to foster a gender-sensitive approach in research and teaching in the long run.

Timetable of implementation

Task/Month	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18
Assembling and generating relevant statistics on researchers/academics in UCL/two departments	■	■	■						
Continuing and finalizing jointly for WP4/WP6 relevant statistics regarding researchers/academics, but also financial distribution of project funding.				■	■	■			
Simultaneously, making a curriculum and project inventory of the gender dimension in both departments	■								
Continuing this process		■							

Task/Month	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18
Analysing the gender dimension in the inventory assembled for both departments							■		
Writing the report on mapping the gender dimension in curricula and research								■	
Dissemination and information use for focus groups									■

Action 3
Organisational culture and everyday working life (Italy)

Policy
To reveal and deconstruct gender asymmetries – often produced and reproduced through everyday, apparently gender neutral, practices – in the organisational contexts by mapping the experiences of postdocs and assistant professors working in the two departments under study and involving them in planning the actions to be implemented by the GAP.

Main aims
The qualitative approach mobilised by this action furnished a cultural perspective where everyday practices and also the symbolic level of the academic and scientific hierarchy were taken into consideration to implement structural change. This action had two aims. The first was to understand the professional trajectories, the working conditions, and the future prospects of early career researchers – postdocs and assistant professors – who, at the time of the interview, were working at the Department of Sociology and Social Research (DSRS) and at the Department of Information Engineering and Computer Science (DISI). The objective was to analyse in-depth how organisational characteristics affect the academic careers of early career researchers. The second aim was to focus on work-life balance issues by mapping existing policies at the university and highlighting the services which were not available but needed by female and male researchers at the early stages of their careers.

Involved actors (at institutional and/or local level)
Administrative offices of each Department involved in the project provided the lists and contact details of the target population. External interviewers - with interview experience - were hired to conduct the interviews, and the staff members of the project supervised their activities.

Target group

Postdocs (or positions that in both selected departments were temporary, without the prospect of a permanent contract) and assistant professors (with a position that was either a tenure track post – a temporary position expected to become permanent in the long run – or the first permanent academic post) who at the time of the interviews were working in the selected STEM and SSH departments. We realised at least ten interviews for each department.

Implementation process

The implementation process consisted of 12 steps:

1) The interviews focused on both the everyday lives and the biographical lifelines of the subjects (in their professional and private lives), with a specific attention to how the two departments selected were experienced and represented. During the interviews, five main fields were explored:

- Individual trajectory
- Organisational culture and everyday working life
- Well-being and work-life balance
- Career development
- Future prospects
- Socio-demographic characteristics were also collected.

The interview was semi-structured, so that the interviewees could include topics not already foreseen by the researchers. For each issue not only the interviewee's experience was explored but also the actions and tools that could help (or could have helped in the past) support their academic careers.

2) The interview guide was tested with a couple of pilot interviews to check the clarity of the questions and the length of interview. The interview guide was corrected on the basis of these checks.

3) A list of postdocs and fixed-term assistant professors currently working in the selected departments was obtained from the administrative offices.

4) Interviewees were selected by considering: a balanced sample regarding

gender; researchers' positions in the scientific career; their membership of research units in their department in order to gain an overview of different research groups within the same organisational context.

5) A personal email was sent to the potential interviewees. It described the project and the main aim of the interview. If there was no reply, another email was sent after two weeks. If necessary – as in the case of small departments – interviewees were contacted by phone. They were told how long the interview would take (around 90 minutes) and allowed to choose the location. Anonymity and confidentiality were guaranteed. A consent form was provided if required by the legal office.
The interviewers were then given the following instructions.

6) Conduct the interviews. Ask to use an audio-recorder and also take notes during the interview. Explain the main objective of the interview and be a good listener, interrupting as little as possible. At the end of the interview, ask if the interviewee has anything to add that was not discussed and collect socio-demographics.

7) Transcribe the interviews entirely, anonymising personal data.

8) In the meantime start a desk analysis of the existing policies and programmes available for postdocs and non-tenured researches, paying particular attention to work–life balance policies. If needed, conduct some interviews with key informants – e.g. human resource managers or trade unionists – who can provide additional information.

9) Code the interviews using a dedicated software (Atlas.ti, NVivo, etc.) bearing two main aims in mind. The first is to understand the experiences and the challenges that researchers may encounter at the early stages of their academic careers. Make a comparison among the interviews conducted in the same department and identify patterns of similarities and differences also between the STEM and the SSSH department. The second aim is instead more focused on systematising the needs expressed by the interviewees in order to plan the most useful actions that they would like to be implemented in their department

or university.

10) Write a research report. Provide quotes from the interviews to illustrate your analysis, paying attention to confidentiality issues. Give recommendations based on the analysis on how to raise awareness in the department and at the university level on gender differences in academia and on how to improve the working conditions and the career prospects of researchers at the early stages of their careers.

11) Use the results obtained to draw up a Gender Action Plan constructed through a participatory approach.

12) Present the results of the research within the university, but also in other academic and research contexts.

Managing resistances / obstacles

The interviewees may be hesitant to perform an interview with a researcher working in the same department. In order to avoid any possible resistance or privacy issue, the collaboration of external researchers is highly recommended.

Moreover, it is essential to guarantee their anonymity and to make clear the goal of the interviews, which is to understand their professional trajectories and work experiences in the studied department, with the aim of implementing actions in order better to support their careers and more in general the quality of work at the university in which they currently work.

Expected outcomes

Greater awareness in the departments involved about the importance of gender culture in shaping scientific careers and organisational practices. Researchers in decision-making positions will be motivated to support the academic careers of young researchers on the basis of the challenges determined by the analysis of qualitative data from the researchers' perspective. This cultural action-oriented approach will support the development of career plans for women in research from the early stages of the career onwards, encouraging them to apply for research funding and prestigious positions.

Sustainability of the action after its conclusion

The action raises awareness in the participating departments and other Italian research organisations on how gender differences are constructed since the beginning of the academic career, and to include non-tenured researchers in the policies addressed to the research staff with permanent posts.

Timetable of implementation

Task/Month	1	2	3	4	5	6	7	8	9
Set up guidelines	■								
Find interviewees	■	■	■						
Carry out interviews		■	■	■	■				
Transcribe			■	■	■	■			
Analyse existing policies			■	■	■				
Analyse and report					■	■	■	■	■

Action 4
Integrating a gender perspective into research and teaching (Slovenia)

Policy
Integrating a gender perspective in research and teaching at organisational level (ZRC SAZU: Fran Ramovš Institute of Slovenian Language and BF: Department for Agronomy) in Slovenia.

Main aims
The main aim of this action was to help researchers and teachers from two test departments to integrate a gender-sensitive approach into their research and teaching, and to apply such an approach when conceiving new project applications and curricula. This action followed the recommendation by the European Commission within FP5, FP6 and FP7, which reads: introducing a gender-sensitive approach makes research and teaching of higher quality and validity by enabling researchers to write a more competitive proposal, and it makes research results more relevant to society since gender-balanced research teams perform better and attract top-level researchers.

The analyses of the gender-related content in research and teaching in six test institutions (project partners) provided insights into common challenges of introducing a gender-sensitive approach in research and teaching:

1) challenges related to the institutional and structural context of the test institutions in cases where there was no database of gender-related projects and courses, and where gender-imbalanced research teams and project leadership prevailed – particularly in STEM;
2) common challenges to integrating the gender principle into research content and curricula from the results obtained, which show that gender is as a rule considered an 'isolated topic' of concern to researchers who are experts on the gender issue.

As a result, incorporating gender into a research plan or syllabus seems rather a matter of individual initiative and enthusiasm than an institutional strategy. This action was oriented to overcoming the existent gap by proposing a set of recommendations for integrating a gender-sensitive approach into research and teaching.

Involved actors (at institutional and/or local level)
GARCIA research team and research staff from two test departments (researchers from A, B, C and D grades).

Target group
1) Research and teaching staff (researchers from A, B, C and D grades), 2) Office for international cooperation, Heads of test institutions.

Implementation process
The implementation process moved through seven steps:

1) Mapping the gender dimension in research and curricula at both test institutions (see action 2).

2) Detecting the dominant strategies to include gender-related content in research and teaching, main obstacles and resistances at institutional, national and European level.
Comparative analysis between STEM and SSH and among beneficiaries provided insights into common challenges of introducing a gender-sensitive approach in research and teaching. Similarities and differences were identified between 1) issues related to the institutional and structural context of test institutions, and 2) non-integrated gender perspective in research content and curricula.

3) Compiling a toolkit to implement gender-sensitive research and teaching.
The toolkit consists of suggestions a) how to consider gender when establishing teaching and research teams, and b) how to integrate gender into research content and teaching through three steps:

> Step 1: Recommendations for designing gender-sensitive research/course content;

Step 2: Recommendations for applying a gender-sensitive theoretical/ methodological structure;
Step 3: Recommendations for producing gender-sensitive outcomes.

4) Testing the toolkit in two workshops in two test departments.
Two workshops were organised with research and teaching staff (researchers from A, B, C and D grades), office for international cooperation, and heads of test departments in order to present and jointly discuss the findings.

5) Analysing the workshop results and conducting comparative analyses between two test departments.
A report will be used as the basis for organising a training course on introducing gender-related content into research and teaching.

6) Organising training on how to introduce gender-related content into research and teaching.

7) Writing the training course report.

Managing resistances/obstacles
There is a tendency among the academics from natural sciences to nurture reservations concerning the question of gender mainstreaming. This could be also visible in difficulties in motivating STEM research and teaching staff to participate in workshops and training courses. We consequently organised a training course on strategies to integrate the gender perspective into research and teaching.

Expected outcomes:
Toolkit for integrating a gender-sensitive approach into research and teaching. Training courses addressed to researchers from A, B, C and D grades were organised in both test institutions by using the Toolkit. Ongoing projects in the specific departments were used to reflect upon the possibility of integrating a gender perspective into research and teaching.

Sustainability of the action after its conclusion

The implementation of training courses will allow the integration of a gender perspective into research and teaching at institutional level. The training course report on strategies to integrate a gender perspective into research and teaching will be disseminated among other national and European academic and research institutions in order to have an impact at national and European level.

Timetable of implementation

Task/Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Detecting challenges	■													
Toolkit design		■	■	■										
Mapping report		■	■	■	■	■	■	■						
Implementation of recommendations		■	■	■	■	■	■	■	■	■	■	■	■	■

Action 5
Making management and decision-making processes gender sensitive (Iceland)

Policy

It is evident from the policy that equal rights should be taken into full consideration during the implementation of administrative projects. According to Icelandic law, more specifically the Act on Equal Status and Equal Rights of Women and Men no. 10/2008, the equality dimension must be integrated into all management and decision-making processes in the Icelandic educational system. The University of Iceland's budget and the division of funding within the University reflect values and priorities. Measures have been developed which are used in gender-responsive budgeting, e.g. under the auspices of the Ministry of Finance. These are important measures, which promote better financial administration and a fairer distribution of public funding, with the prosperity and wellbeing of society in mind. Application of these measures could lay the foundation for evaluating the impact of financial administration on different groups in the future.

Main aims

Adopting gender-responsive budgeting.[28] Gender-responsive budgeting takes the gender and equality dimension into consideration during budget planning. The gender equality dimension is thus integrated at all levels of budget planning. Both the revenue and expenditure sides of the budget are restructured with the aim of improving gender equality. This strategy requires staff at the respective faculties to share ample understanding of the issues in question so that they may see and recognize inequalities and act accordingly. The continuous education of staff in matters of equality is therefore central to the idea of gender budgeting.

---

28   The Equal Rights Policy of the University of Iceland speaks of 'gender-responsive budgeting', whereas the GARCIA Project uses the term 'gender budgeting'. There is, however, no difference in the definitions of the two terms.

Involved actors

A working committee has been appointed to prepare gender responsive budgeting within the University of Iceland. Members of the working committee are appointed by the central administration and all the academic schools. Each unit appoints two candidates, preferably administration personnel. Furthermore, the UI equal opportunities officer and two GARCIA representatives will work with the committee.

A Gender Budgeting Action Plan should be developed within six months. Thereafter the school managing directors and faculty administrative officers in collaboration with the head of the gender studies programme will assume the task of implementing gender-responsive budgeting for the School in question. The gender budgeting plan must have clearly defined goals with measurable results and be within a set time frame. To be mentioned is that this would be an extensive and pioneering task that requires a great deal of work by the actors involved. This should be duly noted and taken into consideration.

Target group

Everyone at the University of Iceland.

Implementation process

Within the School of Social Sciences, one of the most pressing problems in relation to gender responsive budgeting is the incentive point system for publication. Publication is arguably one of the most important factors in appointment and promotion processes as well as grants application processes. Understanding the gendered power dynamics of the way the incentive point system works is therefore essential to making decision-making processes in hiring, promotion and grant contexts. The implementation of gender-responsive budgeting measures in relation to this issue may be broken down into the following six steps:

1) Collect all existing rules and regulations on the current point system at the UI.

2) The working committee on gender responsive budgeting consisting, Icelandic GARCIA team members as well as representatives from the equality board of the two selected departments organise a meeting.

3) Meet to perform gendered analysis of the point system based on rules and regulations as well as professional experience and gender expertise: How do academics from respectively STEM and SSH collect points through research? How easy/difficult is it to gain promotion through research points? How about researchers on maternity/paternity leave? Etc.

4) Write up report based on the gendered analysis.

5) Present findings to the departments involved as well as the director of finance and operations and the UI Division of Finance.

6) Follow-up meeting with the director of finance and operations and the UI Division of Finance.

Managing resistances/obstacles

We foresee two main points of resistance to this action. Firstly, as we have learned from our qualitative interviewing process, not all schools or departments are equally willing to gender particular issues, and so even though we might successfully set up a meeting to discuss some salient problems with the incentive point system for publication, discussing gender could prove a sensitive topic that might halt the implementation process. Add to this that even though levels of SSH and STEM rivalry are not particularly pronounced, disagreements about which departments suffer the most under current conditions might also be a contributing factor to slowing down the process. These resistances can be managed by creating a conflict-free atmosphere from the very beginning, underlining that a gendered analysis will benefit women as well as men and that this action should be perceived as a push for change by all academics at the UI, not a competition between schools or departments.

Expected outcomes

A report detailing the shortcomings of the current incentive point system which will hopefully lead to more fair and just rules and regulations in hiring and promotion practices.

Sustainability of the action after its conclusion

Several follow-up meetings with the director of finance and operations and the UI Division of Finance can be organised to ensure that the research is continuously disseminated. Apart from that it is important to mention that gender responsive budgeting is formally part of the Equal Rights Policy of the University of Iceland and as such, procedures have duly taken into account the results of the gendered consequences of the current system.

Timetable of implementation

Task/Month	1	2	3	4
Collect all existing rules and regulations on the current point system at the UI and set up meeting between the gender responsive budgeting working group as well as representatives from the equality board of the two selected departments.				
Meet to perform gendered analysis of the point system and write research report.				

Action 6
Mapping the leaky pipeline (Italy)

Policy

Quantitative mapping the leaky pipeline in the UNITN at the organisational level.

Main aims

To understand the leaky pipeline mechanism taking into account the experiences of researchers who have left academia and not only those still part of the academic system. The idea is to analyse if and how organisational and individual features influence the trajectories and future prospects of early-stage researchers, identifying what circumstances foster the exit from a scientific career.

Actions: Mapping the leaky pipeline at the University/Research centre compared with national/local data from Action 1.

In the two target departments, to design, distribute and analyse a web survey addressed to: 1) researchers who worked in the past in the departments involved and have left them; 2) researchers in the early stages of their careers who are working in the departments involved.

The main aim of the survey is to obtain information on the careers of two target groups: 1) researchers who worked in the involved departments but have now left them; 2) researchers in the early stages of their careers who are working in the departments involved.

The questionnaire explored four main topics:

     1) current and past jobs;

     2) the level of satisfaction with the work experience in the departments involved in the project and, only for PhD holders who left the departments involved in the project, the level of satisfaction with their current position;

     3) future prospects

     4) personal and family life.

Involved actors (at institutional and/or local level)

Administrative offices of each Department involved in the project to obtain the names and contacts of the target population.

Technical support from a computer technician to programme the online survey.

Target group

1) PhD holders who have worked in the departments involved in the Garcia Project as post-doc or fixed-term assistant professors over the last five years and are now working in other contexts related or otherwise to the scientific career; 2) those working with a post-doc or fixed-term research position in the departments selected.

Implementation process

The implementation process consisted of nine steps:

1) Obtaining the list and the email contacts of the target population. Contacting the human resources office of each Department and asking for the list and the email contacts, and verifying if and how it was possible to contact the target population. Contacting the legal office to deal with possible problems about privacy issues on this information. It is crucial to understand what strategies could be applied to involve as many people as possible in the data collection.

2) Formulating the questionnaire including questions on the following dimensions: work career; satisfaction with job; work-life balance; health issues; future prospects; international mobility, research networks, family career, and socio-demographic features.

3) Programming the web survey by adapting the questionnaire with an online survey software program.

4) Testing the survey to check the clarity of each questions and the length of the survey. Correcting the survey according to the results of these tests.

5) Opening the data collection by sending an invitation email to the target population. Sending a reminder every 8-10 days for at least three times. Asking

key-persons in each department to support the work and to forward the invitation email to the target population. At the end of the first month, checking the number of questionnaires gathered and deciding whether to close the data collection or continue with it in order to improve the response rate. At the end of the second month, closing the data collection. Checking the quality of the data gathered and arrange the codebook.

6) Analysing data at the organisational level.

7) Comparing the results obtained by other Garcia beneficiaries.

8) Writing the research report.

9) Presenting the results of the research in the departments involved in the survey.

Managing resistances / obstacles

The UNITN institutional email expires after the end of a job contract. Consequently, most movers do not have an UNITN email account. To overcome this problem we found the current email addresses of movers by searching for their curriculum vitae on the internet, and/or by using social networks (for example: LinkedIn; Facebook; Academia.edu).

We also asked the administrative office to send the invitation email to the personal email account (different from the institutional one) that they used to manage administrative/fiscal communications with movers. These personal email addresses could not be shared with us because of privacy issues.
Moreover, all the post-docs involved in other Garcia activities were directly invited to take part in the survey.

Finally, we informally asked key-persons in our academic network and post-docs working in the two departments to forward the invitation email to other "movers" (snowball process).

Expected outcomes

Socio-demographic map with the characteristics of researchers susceptible to

leaving the UNITN. Understanding which features connected to post-doc job experiences (in the involved department or outside), work-life balance issues and personal characteristics foster the decision to leave a research career.

Sustainability of the action after its conclusion

Awareness in the UNITN and among Italian research organisations on the importance of the contextual background to act against the leaky pipeline.

Timetable of implementation

Task/Month	1	2	3	4	5	6	7	8	9	10
1. Identifying the target population										
2. Arranging the questionnaire										
3-4. Programming the online platform										
5.Data collection										
6-7-8-9. Data analysis and report										

Action 7
Giving voice to target people (The Netherlands)

Policy
To enhance the departmental work environment for early career researchers by mapping the experiences of postdocs and assistant professors who left/moved away from the department under study, in the context of their career trajectories and the leaky pipeline.

Main aims
To understand the context of early career researchers and the leaky pipeline, taking into account the experiences of researchers who had left the department under study or academia in general.
The idea was to analyse in-depth how organisational, departmental, and individual features influence the trajectories and future prospects of early career researchers. The aim was to identify what circumstances foster exit from the department and/or a scientific career.

Involved actors (at institutional and/or local level)
Administrative or human resource offices of each Department involved in the project provided the names and contact details of the target population. A staff member or externally hired interviewer with interview experience conducted and analysed the interviews.

Target group
PhD holders who had worked in the department as postdoc or fixed-term assistant professor over the last five years and who were now working in other contexts, related or not related to academia. The aim was to achieve a balanced sample regarding gender (men/women) and prior position (postdoc/assistant professor). For each department, at least ten interviews.

Implementation process

The implementation process involved 10 steps:

1) The interviews focused on the everyday lives and the biographical lifelines of individuals (professional and private), with specific attention to how the department was experienced. This was central in the interview outline, which included questions on the following dimensions:

- Socio-demographics, e.g.
    Age, current position and institute, prior position and institute
    Home situation: marital status, children, place of residence
- Individual trajectory, e.g.:
    Salient moments of the interviewee's work history since award of the PhD
    How the interviewee had been recruited by the department
- Organisational culture and everyday working life, e.g.:
    How the interviewee described the climate within the department
    Did s/he have someone considered a mentor in the department?
- Well-being and work-life balance, e.g.:
    Did the interviewee find his/her work spare time appropriately balanced?
    How did s/he organise childcare? What services were provided by the department?
- Career development, e.g.:
    Did the interviewee receive enough support from his/her workplace to pursue his/her professional interests/ambitions?
    Did s/he think that the recruitment and promotion criteria were adequately set?
- Future prospects
    How did the interviewee imagine his/her professional future? And his/her personal/family future?
    How did s/he imagine the future for early career researchers in the field?

Make sure not to include more than 15 open-ended questions (which corresponds around to one hour of interviewing)

The interview was semi-structured, which meant that the topics in the outline had to be addressed, but not necessarily strictly in the order presented. The flow of the conversation and the answers of the interviewee determined the course of the interview.

The following instructions were given to interviewers.

1) Test the outline on a person not involved in the project to check the clarity of the questions and the length of interview. Correct the outline on the basis of these checks.

2) Obtain a list from the administrative or human resource offices of prior postdocs and fixed-term assistant professors who used to work for the department in the past five years. If available and possible, ask for contact details. If needed, contact the legal office to manage possible problems about privacy issues on this information.

3) If the contact details are not available, try to find them on the Internet: via LinkedIn, personal websites, people-searching websites, Facebook, academia. edu, CVs, and the like.

4) Send a personal e-mail to the potential interviewees or approach them by telephone. E-mail may be perceived as less invasive. If the potential interviewees do not respond, send them another e-mail in two weeks time. Depending on the number of positive replies that you receive, approach them by telephone if needed. Mention in your request for an interview what the goal of the interview is; how much time it will take (between one hour and 90 minutes); that they can choose the location; and state that their answers will be treated anonymously and confidentially. If required by your legal office, let them sign a form of consent.

5) Perform the interviews. Make sure to arrange a voice recorder and laptop or notebook to take notes during the interview. Explain before you start what the goal of the interview is, and what topics interviewees can expect. Also, ask if they consent to have the interview recorded so that their interviews can be transcribed verbally to enable analysis. The focus is on the interviewee, so make sure to let him/her do most of the talking. Interrupt as little as possible.

Paraphrase or repeat to make sure you understood correctly, or as a strategy to let interviewees explain themselves further. At the end of the interview, ask if the interviewee has anything to add that was not discussed or emphasized fully.

6) Transcribe the interviews, or hire someone externally (person or agency) to transcribe the interviews verbally. Make sure to anonymise the interviews by removing any names of people or institutes (and possibly, replacing them with synonyms).

7) Code the interviews on the basis of the questions you want answered. For instance: what was the role of mentoring for the previously employed postdocs/assistant professors in the department? To what extent did the department's culture enable or inhibit them from having a desired work/life balance? Coding includes highlighting related parts of the interview text and labelling them with one or two words that mirror the essence of the quote. Collect the codes and quotes per interviewee. Make a comparison among the interviewees: establish patterns of similarities, and differences. Explain where those differences come from.

8) Write a research report. Make sure to include illustrative quotes to underpin the analysis. Address interviewees with their position and department if this does not violate privacy issues; otherwise make them anonymous retaining important information about rank. Give recommendations based on the analysis on how to improve the department's culture to better accommodate temporarily employed postdocs and assistant professors.

9) Present the results and recommendations of the research in the departments involved, for instance to the HR department or the faculty board.

Managing resistances / obstacles

The University's email expires after the end of a job contract. Consequently, most movers no longer have a university email account. To overcome this problem we found the current email addresses of movers by searching for their curriculum vitae on the Internet, and/or using social networks (for example: LinkedIn; Facebook; Academia.edu). Also, interviewees might be hesitant to

convey details about their private lives or politically sensitive issues within their former departments. It was crucial to guarantee their anonymity and the goal of the interviews, which was to understand in-depth how postdocs and assistant professors experience working life in academia.

Expected outcomes

A map of things going well in the department, as well as areas for improvement regarding the departmental culture and processes for temporarily employed postdocs and assistant professors, with a view to differences between men and women employees. Understanding why researchers are susceptible to leave the department. Understanding what features connected to postdoc and fixed-term assistant professor job experiences (in the department or outside) foster the decision to leave a research career.

Sustainability of the action after its conclusion

To raise awareness in the participating departments and other Dutch research organisations of the importance of contextual background for early academic careers and the leaky pipeline. Interview questions can possibly be incorporated into annual employee evaluation interviews and in exit interviews that have proven relevant to the department under study.

Timetable of implementation

Task/Month	1	2	3	4	5	6
Set up guidelines	▓					
Find interviewees	▓	▓				
Perform interviews		▓	▓	▓		
Transcribe		▓	▓	▓	▓	
Analyze and report					▓	▓

Action 8
Meta-analysis and creation of the leaky pipeline typology (Belgium)

Policy
Meta-analysis and creation of the leaky pipeline typology on the basis of the quantitative and qualitative analyses conducted within the Garcia Project.

Main aims
Elaboration of a transnational typology on mechanisms that act upon the leaky pipeline based on the quantitative and qualitative analysis by each beneficiary. The idea was to develop a useful innovative instrument that could be applied at the UCL and among the beneficiaries.

This task was successfully carried out for the quantitative part through the comparative and contextual analysis performed by each of the Garcia teams and gathered in a comparative analysis by the Belgian WP6 team (with the help of the Italian team) to create a report showing different interrelated mechanisms and phenomena that cut across the different Garcia contexts; there are clearly some cross-national comparative effects and mechanisms acting upon and identifiable as leaky pipelines as a transnational phenomenon.

However, a significant result or outcome of this so far quantitative "typology" - or comparative report - is that we collectively propose - based on our collective results - an alternate "model" of interrelations between multiple and complex phenomena that highlights the importance of understanding the nature of "pipelines" - or careers, and less the evaluation of "leaks".

Involved actors (at institutional and/or local level)
Beneficiary organisations, UCL authorities, heads of departments, directors of centres, fellow researchers and academics, early career researchers/academics.

Target group

Beneficiary organisations, UCL authorities, heads of departments, directors of centres, fellow researchers and academics, early career researchers/academics.

Implementation process

1) Reporting the organisational and national results on the leaky pipeline (6.2.3)

2) Articulation of quantitative and qualitative data on the leaky pipeline by UCL (6.3.1)

Start: Comparison among the analyses produced by each beneficiary (6.3.2)

3) The final "typology" remains to be done once the Garcia partners have each submitted their quantitative and qualitative reports to be compared and analyzed by the WP6 team.

Managing resistances / obstacles

The academic authorities and gender appointee(s) have to be involved and mobilized in order to disseminate to them the results of this typology. It is intended to adopt a more bottom-up approach and engage fellow researchers/academics in discussion of possible ways to tackle the leaky pipeline interrelated phenomena that have emerged from the ongoing quantitative and qualitative reports.

Expected Outcomes

The creation of a transnational repertory on the leaky pipeline typology based on institutional profiles constitutes an appreciable database for future research and actions at institutional level. It allows a preliminary - yet necessary - "sifting" of the results so that they can constitute a useful tool of diagnosis of each beneficiary institution. Moreover, this repertory will provide knowledge and raise awareness at institutional level of the need to develop strategies to reduce and ultimately eliminate the leaky pipeline phenomena. This is an important step towards the retention of women and reduction of the gap between women and men in the scientific career, especially in access to tenured positions. In other words, this task is necessary to legitimate the development of specific strategies to reduce the gap between women and men in research.

Sustainability of the action after its conclusion

The action has led to the creation of an observatory of the scientific career by adopting a holistic perspective on the scientific career which takes the "leaked" researchers' perspective into consideration. The implementation of training courses will allow the integration of a gender equality perspective into management at local and institutional levels.

Timetable of implementation

Task/Month	1	2	3	4	5	6	7	8
1. Reporting the organisational and national results on the leaky pipeline (6.2.3)	■	■	■					
2. Articulation of quantitative and qualitative data on the leaky pipeline by each beneficiary (6.3.1)			■	■				
3. Comparison of the different analyses produced by each beneficiary by UCL (6.3.2) - The final "typology elaboration"				■	■	■	■	■

Action 9
Mentoring Activities (Switzerland)

Policy

Set up mentoring activities for young female researchers at the beginning of their postdoc career paths.

Main aims

The main aim was to inform and empower young female researchers at the early stages of their often precarious postdoc career paths by providing them with support through mentors and raising their awareness of the constraints on undertaking an academic career or working outside academia. In practice, this meant:

- Moving beyond the highly individualized environment of academia in order to enable participants to network and exchange impressions and advice on how to manage their careers;
- Increasing career skills and in particular, so-called "soft skills";
- Helping to comprehend the explicit and implicit requirements and criteria for national and international academic careers;
- Providing information and a clearer understanding of career development prospects and opportunities, within and outside academia.

At the institutional level, the creation of mentoring activities also contributes to promoting other types of informal mentoring relations by raising awareness among senior researchers about the needs of young researchers.

The mentoring activities can consist of different actions:

- One-to-one mentoring between a mentor and a mentoree (with discussion on the career, the mentoree's CV, WLB issues, etc.)
- Group self-mentoring, with or without the participation of the mentors
- Workshops and training sessions for the mentorees (soft skills, academic skills, knowledge transfer for people leaving academia, etc.)
- Training session for mentors about their role in the programme.

Involved actors (at institutional and/or local level)

Female postdoc researchers, senior researchers, department/faculty/university administrative staff and decision-makers, equal opportunity and early academic career committee members.

Target group

Female postdoc researchers.

Implementation process

The process of implementation foresaw 10 steps (for a total duration of 18 months):

1) Identifying the potential participants (mentorees and mentors) and their email contacts.

2) Setting up a webpage for the programme and organising an event for the opening of the registration period for participants (mentorees and mentors).

3) If necessary, actively searching for mentorees and/or mentors by sending personal invitation mails or organising information events.

4) Matching the pairs and groups of mentorees and mentors.

5) Training the mentors to inform them about the active role they will have to play.

6) Launching the programme with a one-day event during which all mentorees and mentor meet (keep time for informal networking). Agreement signed by the pairs of mentorees and mentors.

7) One-to-one mentoring.

8) Workshops and training sessions for mentorees every 3, 4 or 6 months (with time for networking; mentors may also be invited to join the group for the whole day or for some social events).

9) Follow-up by the project coordinator regarding the one-to-one mentoring process and the eventual additional needs of mentorees and mentors

10) Closing event and project evaluation.

Moreover, in order to plan the activities we carried out a SWOT analysis.

SWOT analysis:

	STRENGHTS	WEAKNESSES
INTERNAL	• Good knowledge of SSH and STEM department • Organisational skills • Funding available • Gender expertise	• Lack of time • Privacy: Difficulties in obtaining email contacts • Agenda of GARCIA Project
	OPPORTUNITIES	THREATS (OR CHALLENGES)
EXTERNAL	• UNIL Gender action plan • Gender action plans in the departments • Young researchers ask for training and support	• Fast turnover of postdocs • Work overload for mentorees and mentors. • Motivation of mentors

Managing resistances / obstacles

If the recruitment of mentorees and mentors proves to be difficult, some events or short presentations of the project, during meetings or commissions inside the target departments, should be organised.

- Mentors may be difficult to recruit because they may be afraid of an additional work-load. Therefore the signing of an agreement enables participants to set clear limits on their participation.
- Mentoring activities can be organised at department, faculty, university levels (and even across different universities). Therefore they have to be designed specifically (either disciplinary or more inclusive of different fields). Previous experience (as for example in the *Réseau romand de mentoring pour femmes* in Switzerland[29]) has shown that mentorees are

---

29   http://www.unifr.ch/f-mentoring/en/Accueil.

more interested in acquiring "soft skills" that are not specific to a single discipline. Soft and transferable skills can be developed in workshops designed for participants from different academic fields.

Expected outcomes

Improved (objective and subjective) resources for women researchers wanting to pursue a scientific/research/academic career.

Sustainability of the action after its conclusion

On the basis of an evaluation of the process and of the degree of participation, the University of Lausanne will decide if and how to continue with the mentoring activities or to integrate them in other similar initiatives already in place.

Task/Month	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20
1 + 3. Identify & contact participants	■	■								
2. Disseminate information about the programme		■								
4. Match the pairs of mentorees and mentors		■	■							
5 + 6. Train the mentors, launch the programme			■							
7 + 8 + 9. One-to-one mentoring, workshops and training sessions and follow up by the coordinator				■	■	■	■	■	■	
10. Closing event, programme evaluation										■

Action 10
Mapping of formal criteria/actual practices (Slovenia)

Policy

Mapping of formal criteria and actual practices of recruitment and selection of candidates at early stages of their career at organisational level (ZRC SAZU: Fran Ramovš Institute of Slovenian Language and BF: Department for Agronomy) in Slovenia.

Main aims

The main aim of this action was to reconstruct the process of the recruitment and selection of the candidates at the first position (usually temporary) or those with a prospect of a first permanent position by mapping the formal criteria and the actual practices used to evaluate academic excellence. Making formal and informal requirements for this procedure more transparent added to another action: the organisation of workshops aimed at empowering researchers with precarious positions to resourcefully prepare applications for the first permanent position.

Rationale: Employing an 'already known candidate' proved to be a common practice in both test institutions in Slovenia while the decision-making process remains rather a formality. Young researchers and PhD holders, either temporarily employed or fixed-term assistant professors, are mostly recruited and selected because of their previous (undergraduate) collaborations with their later appointed (MA and PhD) mentors. If they fulfill the requirements of publicly announced job position, they are the preferred candidates of their mentors who are also the members of committee commissions. As a result, there is no long list of candidates but only a short list with one or a maximum of three candidates.

In both STEM/SSH departments, gender was not particularly recognised either in formal criteria or actual practices. The appointment reports did not refer to or deal with affirmative action or gender equality either.

Involved actors (at institutional and/or local level)

Bodies responsible for recruitment and for evaluation of young researchers, PhD holders and university teachers in both test departments: e.g. Director/Dean of the test departments, HR officers, selected committee members for young researchers, assistants with PhDs, and assistant professors or researchers at the first permanent position.

Target group

1) Candidates aspiring to academic and scientific careers (particularly those with prospects of a permanent position); and 2) representatives of bodies responsible for recruitment and evaluation of candidates at early stages of their academic careers.

Implementation process

The implementation process foresaw 8 steps:

1) Obtaining the list and email contacts of the members of bodies responsible for recruitment and for evaluation of the candidates at early stages of their academic careers. Contacting the HR office of each Department and asking for the contacts. Contacting also the legal office to manage possible difficulties about privacy issues on this information.

2) Analysing (content analysis) various available documents related to the recruitment and selection of the candidates: job systemization in two academic fields (SSH and STEM), job descriptions of vacancies in the last five years, and HR-documents (e.g. appointment reports and assessment sheet for evaluation of young researchers).

3) Conducting interviews with the committee members and organising a focus group with other members of recruitment procedure to identify how excellence criteria are employed in actual practices.

4) Transcribing the material obtained.

5) Analysing the gap between formal criteria and actual practices in the selected

units.

6) Comparing with the results obtained by other GARCIA beneficiaries.

7) Writing the research report.

8) Presenting the results and discussing the recommendations of the recruitment and selection process on the basis of results obtained at both test departments.

Managing resistances / obstacles

The Personal Data Protection Act in Slovenia prevents HR officers from providing the contacts of committee members. Interviewers were invited to consider other possibilities to obtain the contacts, for instance, employing a snow-ball technique. In the case of HR documents, they should propose that the officer replace the names of committee members with the labels 'male' and 'female' to obtain at least the gender structure of the committee members and the candidates. Again, the snow-ball technique could be used to establish contact with collocutors. In the worst case scenario, when a systematic analysis of the documents was not possible at all, focus groups and interviews could be conducted to identify how committee members applied excellence criteria in actual practices.

Furthermore, the Slovenian (STEM) Department of Agronomy is not sensitive to gender issue since there is a recent tendency towards feminisation of the discipline. Because of the decreasing agricultural sector and food-processing industry in the country, there is obviously a changed gender structure of students enrolled and teaching staff in favour of women. As a result, those responsible for the recruitment and selection of candidates do not recognise gender as an issue worth discussing and changing. Therefore, in the STEM test department, recommended changes met resistance to changing internal regulations and established practices. In such cases, an informal discussion or workshop with involved actors at organisational level was necessary to find common solutions.

Expected outcomes

Materials showing the features of the gap between formal criteria and actual practices in the STEM/SSH departments selected, and recommendations to

overcome the lack of transparency in such processes.

Sustainability of the action after its conclusion

Besides raising awareness of the gap between formal criteria and actual practices in recruitment and selection processes at universities and research centres involved in consortia, this action will highlight the lack of transparency in such processes and how to cope with it at local, national and European level.

Timetable of implementation

Task/Month	0,5	1	2	2,5	4	5	6	7	8
Contact	■								
HR documents' analysis		■							
Interviews and focus group			■	■					
Analysis of the gap between theory and practice, report, and recommendations					■	■	■	■	■

Action 11
Understanding and changing gender biases in the construction of excellence (Iceland)

Policy

The main goal of The University of Iceland (UI) Policy, 2011-2016 is to achieve excellence in the fields of research, teaching, administration and support services.

Excellence may be defined as the quality of being outstanding or extremely good, and it is the standard by which new staff for research and teaching is hired at UI. However, as shown in previous research reports (i.e. D7.1: University of Iceland: Report on gap between formal-actual criteria to construct excellence in two selected faculties), individuals with appointing power often define excellence loosely and informally, which denotes that excellence may acquire a gender bias.

One the one hand, this means that some impartial and transparent parameters for measuring excellence in candidates must be in place, so that the term is not interpreted subjectively on an individual basis. On the other hand, it is naïve to assume that individuals with appointing power are able to remain "objective", even with a set of guidelines for hiring the most excellent candidate. It is this paradox which must be circumvented in the practical application of an action plan aimed at changing gender biases in the construction of excellence.

Main aims

The main aim of this policy should be to create research activities that will produce the data needed for supporting practical solutions to changing gender biases in the construction of excellence.

This research activity involves analyzing job descriptions and hiring/promotion policy documents as well as carrying out and analyzing focus group interviews with people with appointing power.

We suggest that a gender action plan seeks to raise awareness of what constitutes excellence, how excellence is conceptualized and measured, and possibly gendered. The main aims of this GAP action is therefore as follows.

Involved actors

Equal Opportunities Officer in collaboration with the management personnel and all individuals with appointing power such as members of evaluation committees and election committees.

Target group

Potential staff and potential pool of applicants for any academic position.

Implementation process

The implementation process includes 5 steps:

1) Collect available job descriptions of vacancies for C and D level positions, 2010-2014 as well as for tenure-track and non-tenure track. At the University of Iceland only C level position job descriptions of vacancies were available, as D-level positions are not advertised. C level positions are temporary full-time positions with the prospect of a long-term contract after 5 years.

2) Collect available policy documents on hiring and promotion practices. In the Icelandic context, these are for example the Rules for the University of Iceland No. 569/2009 and the Act on Equal Status and Equal Rights of Women and Men no. 10/2008.

3) Collect contact information on all academics within two selected departments (one representing STEM, one SSH) that have been on an evaluation or selection committee, between 2010 and 2014. Since the UI is a medium-sized University with just around 13.000 students, the sample should be broadened to include the whole School of Social Sciences and the School of Engineering and Natural Sciences. Ask them to participate in focus group interviews, those who decline should be offered a one-on-one interview.

4) Analyse and compare the formal hiring/promotion practices in job descriptions

of vacancies/polices with the actual practices found in focus group and individual interviews.

5) Write research report answering the questions: Do selection criteria play out differently or similarly for male and female candidates? Are competencies of male and female candidates rated differently? Can some criteria be considered to be more masculine or feminine? How is the 'selection game' played and who are the key players? What power processes take place in the recruitment and selection?

Managing resistances / obstacles

When gathering information on a project that has a gendered angle, research team members may sometimes encounter resistance from potential research participants that ranks higher than them on the academic latter. This can be managed by using a high-ranking member of the research team as the main intermediary.

Expected outcomes

A research report detailing the gender biases in the construction of excellence. We expect this report to become a useful tool in creating more just and fair hiring and promotion processes in which committee members are more aware on (unconscious) gender biases that might influence their ideas of excellence.

Sustainability of the action after its end

To ensure greatest possible impact of the research report, results should be continuously disseminated to those within appointing power within each school or department (see action 12). Sustainability will also be ensured by the importance attributed to disseminating gender research as detailed in the University of Iceland Equal Rights Policy.

Timetable of implementation

Task/Month	1	2	3	4	5	6	7	8
Collect available job descriptions and policies on hiring and promotion processes as well as contact information for focus group and interview participants	■	■						
Analyse and compare the formal hiring/promotion practices in job descriptions of vacancies/polices with the actual practices found in focus group and individual interviews.			■	■	■			
Perform working groups						■	■	■

Action 12
Raising awareness for committee members and for candidates (The Netherlands)

Policy
Change gender practices in recruitment, selection and evaluation processes and practices.

Main aims
To create a learning environment by organising reflexive working groups with committee members and other key players and workshops for prospective candidates and non-tenured researchers (hereafter: candidates). To raise awareness among key players (hereafter: committee members) on how gender practices influence the selection process and the selection criteria, including conceptions of excellence. To raise awareness that evaluation criteria are not objectified truths, and that evaluators' conceptions of criteria differ. To raise awareness among candidates of gender practices in evaluation procedures that disadvantage women.

Involved actors (at institutional and/or local level)
Administrative or human resource offices of each department were involved in the project in order to obtain the names and contact details of the target population. Facilitators for the working groups, from within or outside the project team. Preferably also leadership support was involved to stimulate participation in working groups.

Target group
Committee chairs and members (academics who had been or would be part of selection committees for early career researchers), other key players (e.g., managers of the departments, HR staff), and prospective candidates for tenured positions and non-tenured researchers of the participating departments.

Implementation process

The implementation process foresaw 7 steps:

1) Conducting action 10 and action 11.

2) Obtaining a list from the administrative or human resource offices of the names and contact details of committee members and candidates. If this was not possible, contact the whole department and specify the target population in his/her invitation e-mail.

3) Sending a personal e-mail to the committee members and candidates with the purpose and the date of the working groups. If possible, leadership (dean/ director institute) was involved as co-organiser of the working groups (employees would be more inclined to participate if asked by higher management). It was recommended to organise a working group for committee members and a workshop for candidates separately. To keep working groups interactive, the number of participants was restricted to 10-12 per working group.

4) Booking a meeting room for the working groups, ensuring that the room was set up in a way that discussion could be facilitated. If the intention was to present the findings via a projector, it was necessary to ensure the room has the necessary facilities.

5) The working group for committee members should focus on raising awareness of and reflecting on gender practices in recruitment and selection of early career researchers and how to counter those in the evaluation of excellence in the department and/or university. Interviewers were instructed as follows: share the outcomes of actions 10 and 11 with committee members; facilitate discussion about gender practices in and effects of current procedures and selection criteria; discuss possibilities to change procedures and/or criteria.; practice how to recognize and intervene in gender practices in recruitment, selection and evaluation; create a learning environment for committee members, and leave ample room for contributions from committee members themselves; make sure that solutions are tailored to the specific context in which the committee members operate.

6) The workshop for candidates was also aimed to raise awareness of gender practices in the recruitment and selection of early career researchers. The workshop sought to prepare early career academics (particularly women) better for selection procedures. The following instructions were given: share the outcomes of actions 10 and 11 with prospective candidates: share knowledge and tips on gender practices, interpretations of criteria, conceptions of excellence, and also on presentation strategies, networking, gaining visibility, publication strategies, impression management, and etcetera for increasing application effectiveness.

Make sure that tips and tricks are tailored to the specific context in which the candidates operate.

7) Evaluating the working groups both with the participants as well as among the team of facilitators.

8) Documenting the results for future use in recruitment, selection and evaluation.

Managing resistances / Obstacles in assembling data

Participation in recruitment and selection is already time-consuming, and participating in reflexive working groups required extra time investment of academics. Awareness of gender practices tended to be low, and beliefs in meritocratic recruitment and selection high, further hindering the sense of urgency for these working groups. Yet the working groups shared the results of the data analysis. Leadership support for these working groups was obtained so that management pressure to participate was ensured.

Expected outcomes

Alternative criteria for evaluation according to the target disciplines/departments; recommendations for countering gender practices in the departments selected; better preparation and awareness of (women) candidates for selection procedures.

Sustainability of the action after its conclusion

Spreading awareness of gender practices and how to counter those practices in the evaluation of excellence in all the university's departments. Dissemination of guidelines on how to counter gender practices in evaluating excellence in the university.

Timetable of implementation

Task/Month	1	2	3	4	5	6
CInvite committee members and candidates	██					
Make the necessary arrangements	██	██				
Perform working groups			██	██		
Evaluate and report					██	██

Appendix 1

Interview guide for semi-structured interviews with key players

Semi-structured interviews with key players. Interviews should be tape recorded and transcribed. Beneficiaries will perform an inductive analysis on the transcripts, by means of the ATLAS analytical program, in order to capture underlying discourse patterns.

It is highly recommended that you conduct the interviews after you have started the above-mentioned data collection. The interviewer will thus have better knowledge of the institution or department and therefore be better prepared for interviews with the key players.

1) Institute's/department's visions and strategies

Questions	Follow up questions:	Rationale
What is the role/duties of your institution/department, if any, in a wider context?	On a local level In society? In the international scientific community?	To see if the interviewee views his/her institution as serving the larger society, as knowledge producing only, or as a market oriented institution.
What do you think are indicators of success within your institution/department?	E.g. amount of: Research funding? Nr of Publications? Journals and ranking? Nr of PhD graduates? Strong work ethics?	Too see if there are differences between the views STEM or SSH oriented and if New Public Management ('markets, managers and measurement' policies) has an effect on it.
Do you consider […] important for your institution/department?	Research? Publications? Journals and ranking? PhD graduates? Can you elaborate on that?	

Questions	Follow up questions:	Rationale
Are you aware that your institution/department has some kind of policy or vision? What can you tell me about that vision?	Regarding research, management, and teaching?	Here we wish to analyse the discourse on the institution's policy and if New Public Management has an effect on it. Also to see if gender is part of the policy and to analyse if there is support or not within the institution/department to include gender.
Are gender issues part of the policy of the institution/department?	If yes, please explain how. If no, is the institution/department willing to include gender issues indicators in future policies?	
Does the institution/department have a specific goal?	E.g. production of publications? Regarding international ranking?	
How does the institution plan to achieve its goal(s)?	E.g. with increasing the annual number of doctoral degrees awarded? High quality publications? Collaboration with foreign or other domestic universities? Increase third party funding?	
Does the institution monitor progress?	If so, in what way?	
Can you identify the key players with regard to policy making within the institution/department?	Would you say that it is a top down or a bottom up process? Do you know whether all departments have representatives in the process? Are both men and women part of the process?	To see if the decision making powers and processes are gendered and whether they are STEM or SSH oriented.

2) Funding to the institution

Questions	Follow up questions:	Rationale
Can you explain how your institution/unit is funded?	Governmental/public funding? Third party funding? Within the institution?	Good starting point before asking the following questions.
Does the institution/department have agreements with the business community/private parties on funding positions?		
Does the institution have economic oriented goals?	E.g. more third party funding? More agreements with the business community? Outsourcing?	To see if there are economic goals and if there has been any success.
Has the institution tried to increase public and/or third party funding?	In what way? How would you describe the success level of that?	

3) Allocation of funding within the institution/department

Questions	Follow up questions:	Rationale
Is the distribution based on any model? Does it have any ideological underpinnings?	What is that distribution based on? Does this principle apply to all departments/units? Does gender play a role in the decision making?	To see if the budget is transparent. To see if there are different principles in allocation of money between STEM and SSH. If gender is an indicator.

Questions	Follow up questions:	Rationale
What would you say is the level of autonomy of the institution within the budget making? Or are the public funds centrally planned?		Autonomy vs. central planning
Can you tell me who makes the final decisions on how the funding is allocated?	Is it a "technical procedure" that includes only financial experts? Is it a collegial management model to some extent, and if so, which groups are involved? Is gender part of the decision? How and who?	To see if the decision making powers are gendered and/or STEM or SSH focused. Research shows that women are only marginally included.
Is the allocation of funding within the institution based on incentive-based budget system?	Is funding connected to performance and success agreements of the departments? Is the distribution of public funding connected to third party funding? Is the distribution of funding connected to production of publications/research? Is the distribution of funding connected to success in teaching? If so, how is that measured? Is the distribution of funding gender equality indicators? E.g. connected to success with gender equality within the department?	To see if New Public Management has an impact on the budget system, and what kind of measurement is employed, if any.

Questions	Follow up questions:	Rationale
Do the departments have autonomy in budget planning? Or are the funds that they receive centrally planned by the institution?		Autonomy vs. central planning

4) Performance indicators

Questions	Follow up questions:	Rationale
Are there demands on efficiency of the academic staff?	For example that they publish more articles or that they should get more third party funding?	To see whether and how the budget system affects the staff in their daily activities.
Are there any performance based measurements/ evaluations of the work of the academic staff?	Concerning, e.g.: Teaching? Research? Publications? Management?	
How does this performance based evaluation system affect the staff?	Does it affect Salary?: Promotion? Other things?	
Is the progress monitored?	How?	

5) SSH & STEM

Questions	Follow up questions:	Rationale
Does your institution/department have a goal regarding the number of PhD graduates? And post- graduates?	What is the goal? On what is it based? E.g. on labour-market demand? On what other/foreign institutions/departments are doing? Something else?	See if there are PhD programs, and if there is an increasing emphasis on number of PhDs..
Do the PhD students have work obligations?	Teaching or assistance obligations? Are these obligations paid or non-paid?	To analyse the non-paid work of PhD students.
What is your opinion on non-paid obligations of PhD students?	Is there a policy regarding work obligations of PhD students within your department?	
Do the postdocs have working activities that are not strictly related to their research project and expected in their contract?	Are these activities paid or unpaid?	To analyse the non-paid work of postdocs.
What is your opinion on unpaid activities of postdocs?	Is there a policy regarding extra-work activities of postdocs within your department (teaching, other contracts, etc.)?	
What is your opinion on unpaid activities of postdocs?		There is an indication that the number of temporary contracts in academia has been increasing over the years.
What is your opinion on temporary contracts?	Has the number of temporary contracts increased or decreased in recent years?	

Questions	Follow up questions:	Rationale
What is your opinion on the increasing number of PhD graduates in your institute/department [or in Europe, if this is not the case in your institution]?	Is there job security for the PhD graduates? Within academia or in other sectors of the labour market?	To analyse the PhD graduates vs. number of academic positions.
Do you think that your institution/department is promoting equal opportunities for men and women in permanent employment?	How is the representation of women and men at the PhD level? And at C-level?	
Is there especial concern about the C-level (assistant professors on tenure track) for a permanent position. Is there especial concern about the double bind in the area of service? Are various service roles spread evenly among academic staff, what are the qualities most sought after when distributing service roles?	How is the representation of women and men at the PhD level? And at C-level?	

Appendix 2

Data collection modules

1. Gender equality in working condition

Dimensions /variable	Indication of non-accessible	Indication of non-existent data	Indicators								
Presence /affiliation			N. of departments /centres in the Garcia institution								
				2010		2011		2012		2013	
				M	F	M	F	M	F	M	F
Sex composition of Departments /Centres			N of research staff with a permanent position (IN EACH DEPARTMENT SEPARATELY):								
			N of full professors (Full-time)								
			N of full professors (Part-time)								
			N of associate professors (Full-time)								
			N of associate professors (Part-time)								
			N of assistant professors (Full-time)								
			N of assistant professors (Part-time)								
			N of assistants (Full-time)								
			N of assistants (Part-time)								
			N of research staff with a temporary position:								

Dimensions /variable	Indication of non-accessible	Indication of non-existent data	Indicators										
			N of research staff with a tenure position (if different from permanent positions)										
			N of research staff with non-tenure positions										
			N of assistant professors (Full-time)										
			N of assistant professors (Part-time)										
			N of assistants (Full-time)										
			N of assistants (Part-time)										
			N of postdocs (Full-time)										
			N of postdocs (Part-time)										
			N of PhD students										
			N of BSc students										
			N of MSc students										

2. Gender equality in career development

Dimensions /variable	Indication of non-accessible	Indication of non-existent data	Indicators	2010		2011		2012		2013	
				M	F	M	F	M	F	M	F
Promotion											
			N of vertical promotions of research staff with permanent position:								
			N of vertical promotions to Full professors								
			N of vertical promotions to Associate professors								
			N of vertical promotions to Assistant professors								
			N of vertical promotions to Assistants with a PhD								
			N of promotions of research staff with a temporary position to a permanent one:								
			N of promotions to full professors								
			N of promotions to Associate professors								
			N of promotions to Assistant professors								
			N of promotions to Assistants with a PhD								
Exits			**N of exits:**								
			N of exits of Full professors								
			N of exits of Associate professors								
			N of exits of Assistant professors								
			N of exits of Assistants with a PhD								

			Indicators								
Recruitment process			PhD								
			N of PhDs (ongoing)								
			N of newly entering PhDs								
			N of PhDs obtained								
			Post-doc								
			N of applicants								
			N of new post-docs entering								
			N of the evaluators (members of selection committee)								
			Assistant professor								
			N of applicants								
			N of newly entering								
			N of the evaluators (members of selection committee)								
			Associate and Full professors								
			N of new entrances								

3. Gender equality in research and teaching

Dimensions /variable	Indication of non-accessible	Indication of non-existent data	Indicators	2013	
				M	F
Research projects			**N of funded European research projects Full professors**		
			N of funded European research projects Associate professors		
			N of funded European research projects Assistant professors		
			N of funded European research projects Assistants		
			N of funded national research projects Full professors		
			N of funded national research projects Assistant professors		
			N of funded local research projects Full professors		
			N of funded local research projects Associate professors		
			N of funded local research projects Assistant professors		
			N of funded local research projects Assistants		
			N of funded internal research projects Full professors		
			N of funded internal research projects Associate professors		
			N of funded internal research projects Assistant professors		
			N of funded internal research projects Assistants		
Teaching			N. of mandatory courses/hours taught		
			Full professors		
			Associate professors		
			Assistants		
			N. of elective courses/hours taught		
			Full professors		

			Indicators		
			Associate professors		
			Assistant professors		
			Assistants		

4) Work/life balance

Dimensions /variable	Indication of non-accessible	Indication of non-existent data	Indicators	2013	
				M	F
Leaves			Maternity/paternity/parental leave - N days (mean)		
			Full professors		
			Associate professors		
			Assistant professors		
			Assistants		
			Other types of leave due to family care N days (mean)		
			Full professors		
			Associate professors		
			Assistant professors		
			Assistants		

Appendix 3

Interview guide for researchers employed on temporary contracts (postdocs, non-tenured assistant professors, adjunct professors, etc.)

Usually, the interviewer comes to the interview with a paper-based list of prepared questions. This is the GARCIA interview guide. Since we are conducting semi-structured interviews, the guide is developed in a 'loose' manner – with general questions (column "QUESTIONS") designed to open up conversation about the topic. In the column "ADDITIONAL QUESTIONS" a set of possible follow-up questions is included in case an interviewee is not 'responsive' on the topic. In the last column ("RATIONALE") reasons for asking particular sets of questions are provided.

The questions addressed to both groups of interviewees (interviewees who currently work and who worked in the past in the GARCIA institutions) are in black. In blue are the specific questions addressed to postdocs and academic staff on the first post with a tenure or permanent position; in orange are instead the questions addressed specifically to post-docs and non-tenured research staff who worked in the past in the GARCIA institutions but who were no longer working there at the time of the interview.

Table 1. Individual trajectory

Questions	Additional questions	Rationale
What are the salient moments of your work history from the end of your PhD until now?	What has been your career path so far? (PhD, job search, previous work experience: dates and times of different jobs, labour contracts, etc.). Have you experienced unemployment? How did you manage it? Did you receive any benefit? How did you try to create continuity/ stability in your work history?	Understanding the key turning points in career pathways
How have you been recruited by the Garcia department?	Was the recruitment internal or not? Was it publicly advertised or not? Was the hiring favoured by an internal/external mentor?	Understanding access in the Garcia department
Can you speak about your transition from postdoc in the Garcia department to your current situation?	Why did you move from the Garcia department? What were the reasons for this change? How did this affect you? And your career?	Understanding the move from the Garcia department to the current situation

Table 2. Organisational culture and everyday working life

This part of the interview focused on the current everyday working life for the first group of interviewees, while it was mainly retrospective for the second group of interviewees. The focus in both cases was on one STEM and one SSH department of the GARCIA institution.

Questions	Additional questions	Rationale
What is [was] the organisational climate? What are [were] the main organisational values?	Are [Were] there sub-groups in the Garcia department? Who and why? Are [Were] there social activities in and outside working hours? What successes [were] are valued/celebrated?	Organisational culture
How would you describe your current [previous] working relationships in the Garcia department?	Are [Were] the relations in the department mainly formal or informal? How is [was] your relationship with colleagues? With the head of your research group? The head of the department? The other research groups?	Employment relationships and the quality of work
Do [Did] you have a postdoc supervisor or mentor in the Garcia department?	What is [was] the impact of these persons on your thesis/research/publication? Did s/he help you understand next step requirements for pursuing an academic career? How did/did not this relationship evolve or change during the course of your project? How is [was] the organisation of the supervision? How would you change [have changed] this? What are [were] your needs?	Mentoring

Questions	Additional questions	Rationale
Are [Were] there different expectations towards women and men in the department?	Are [Were] there different informal rules for women and men? Who are [were] considered the best people in the department? Are [Were] there also women among colleagues considered excellent in the department?	Gender culture in organisation
What does [did] your workplace look like currently [when you used to work in the Garcia department]?	How big is [was] your office? How many persons are [were] there in the office? What technical equipment do [did] you use during your workday? Do [did] you have a PC and/or laptop provided by the department? Do [did] you have a phone? A printer? Do [did] you find the equipment adequate? If you were [had been] in position to do so, would you ask [have asked] for other equipment?	The physical aspects of a workplace environment
How is [was] your working day?	Do [did] you have fixed working hours? How many hours a week on average do [did] you spend working?	Organisation of work that is in/sensitive to work-ife balance
Are [Were] your tasks clearly defined in the Garcia department?	How are [were] work activities organised and what are [were] the main activities you are [were] in charge of? Are [were] they defined in accordance to your own research interests? What is [was] your degree of autonomy?	Organisation of work among the research staff – who is expected to carry out time-consuming, non-academic work

Questions	Additional questions	Rationale
In what way is [was] administrative work organised in the Garcia department?	Do [did] you have adequate administrative support for your work? How much of your working time do [did] you spend on administrative tasks? If you were [had been] in a position to do so, would you organise [have organised] administrative work at your Garcia department differently?	Distribution of administrative work between men and women and its relation with in/equality in academic organisations
Are [Were] you currently [at that time] involved in research project/s?	Are [Were] you involved (or even leading) a research project at regional, national, European or international level? Have you participated (or led) a project in the past? How did it happen that you were involved / not involved in research projects? Do [Did] you participate in project application design and writing? Do [Did] you participate in decisions about research policy at your Garcia department?	Spaces of decision-making and performing: a researcher's position
Do you teach? Did you use to teach when you were working at the Garcia department?	(For researchers who do [did] not teach): Would you like [have liked] to be included in teaching? At what level?	Teaching vs research engagement

Questions	Additional questions	Rationale
How many and what kind of courses do [did] you teach?	Do [did] you teach mandatory or elective courses? Who decides [decided] on the courses you teach [taught] and their content? How many students do [did] you have per course and per academic year? Do [did] you supervise undergraduate/graduate research theses? How many? How are [were] these activities recognised by your Garcia department?	In/secure teaching (and employment) position
Do [did] you participate in curriculum design at the Garcia department?	Do [did] you set up the curricula for the courses you teach [taught] yourself?	Spaces of decision-making and reputation: a researcher's position
Do [did] you find your teaching vs. research time appropriately balanced?	Would [did] you consider yourself over- or under-loaded with teaching?	Research vs teaching balance
To what extent are [were] you satisfied with your salary?	Are [Were] you expected to engage in extra undervalued work? For example?	Unpaid and scientifically low-valued tasks
What are the main changes with your current job?	What have been the main changes in your work environment from then to the present?	Changes from then to now in the work environment

Table 3. Well-being and work-life balance

This part of the interview focused on the current everyday working life for the first group of interviewees, while it was mainly retrospective for the second group of interviewees. The focus in both cases was on one STEM and one SSH department of the GARCIA institution.

Questions	Additional questions	Rationale
Thinking about well-being, how do you feel in general? How did you feel before?	Do you get enough sleep? How are the lunch and the dinner breaks organised? Do you have any symptoms of fatigue or stress? What happens when you are sick? Have these things changed since the period in the Garcia department?	Understand the body and embodied needs and limitations.
Are you living alone or with other people? In your own home or rented accommodation? Do you have a partner? Do you have children and of what age? Has this situation changed between the period in the Garcia department and now?	Do you live in an extended family or have parents living nearby? (If you have a partner) is s/he employed? In a temporary or permanent job?	Investigate private and family life
Do you find your work spare time appropriately balanced?	Do you ever work at home after official working hours? Do you work at weekends? During holidays? What kind of work (emails, articles, etc.)? Has this changed since your period at the Garcia department?	Investigate work/life balance

Questions	Additional questions	Rationale
Does how work is organised enable you to balance your work with private/family life? Has this situation changed over time?	Can you influence the scheduling of meetings, classes and group work so that you can organise your private/family life in the best way? Would options of part-time, flexible working hours and work from home be available to you? If not, why? If yes, would [did] you use them or not? Was this the case before in your work at the Garcia department?	Institutional aspects that affect ways in which work-life balance is negotiated
Do you believe that you have [had] enough support from the Garcia department to maintain this balance?	How much maternity/paternity/parental leave have [had] you taken? Do [Did] you have the right to take it? (If relevant) Do [Did] you have a separate room for breastfeeding?	
What services are [were] offered by the Garcia department? Do [Did] you use them?	(If not) How do [did] you organise childcare while you are [were] at work?	Broader structural aspects that affect ways in which work-life balance is negotiated

Questions	Additional questions	Rationale
Do [did] you have any external support in your work-life balance?	How are household and child caring tasks allocated in your family? Do you receive any assistance from relatives? Friends? Public/private services? Can you afford to work additional hours or travel to conferences? Do you feel that your family/partner are hindering/delaying/obstructing or accelerating/facilitating/aiding/enabling your career? Has this changed since your period at the Garcia department?	Family aspects that affect ways in which work-life balance is negotiated
Do [did] you have enough time for leisure, cultural activities, sports, hobbies, associations, politics, friends, etc.?	How often are [were] you able to engage in these activities? (If not) What would you like [have liked] to do in your free time?	Investigate the blurred boundary between work and free time in academic lives.
Have you ever been a member of unions or other associations?	Have you ever participated in any form of collective action inside or outside your university/non-university research institution (trade unions, intra/inter-group solidarity, etc.)	Investigate the level of conflict and collective actions
Do [Did] you have access to specific employment or social policies (unemployment benefits, housing, meal vouchers, canteen, etc)?	Do [Did] you feel the need for broader protection? Which in particular? Has this changed since your period at the Garcia department?	Access to the rights of social citizenship and integration into the labour market, paying particularl attention to scientific careers

Table 4. Career development

Questions	Additional questions	Rationale
Do you think your current position matches your academic skills, record and experience?	Do you think your current position matches the responsibility you hold? Do you spend too much time on tasks you shouldn't be responsible for? Which ones?	Discrepancy between education obtained and daily tasks performed
Do you have enough support from your current workplace to pursue your professional interests/ ambitions?	Has this changed since your period at the Garcia department?	Hierarchical constraints
Do you think the recruitment and promotion criteria are adequately set?	What is the most problematic aspect in your view? Are they sensitive to work/life balance? Has this changed since your period at the Garcia department?	Transparency of recruitment and promotion criteria. Harmonization of academic work with caring obligations
Have you ever taken a break in your academic career?	If yes: For what reasons? If no: Would you consider taking a pause? In which case?	Consequences of taking various types of pause to keep or improve a job position
Are you satisfied with your publication record? Was publishing important to you then and now?	What do you see as the main obstacles to more extensive publishing? Do you think that your publications are an important asset for your current situation?	'Scientific excellence' expectations (the most suitable profile)
Are [were] you able to attend conferences? And to spend research visiting period?	What do [did] you see as the main obstacles to making your academic work more internationally visible and to expanding your network?	Distribution of resources for travel and research within unit/department organisation

Questions	Additional questions	Rationale
Are [were] you a member of any executive body at your Garcia department?	(If not) would you be [have been] interested in such academic engagement?	Spaces of decision-making, prestige and honour

Table 5. Future prospects

Questions	Additional questions	Rationale
How do you imagine your future?	How do you imagine your professional future? How do you imagine your personal/family future?	Understanding future prospects
Do you have any project or desire in particular? On the other hand, what are your main concerns?	What are your projects and main concerns (change job, buy a house, take a trip, change city, have a child, live together, get married, etc.)?	Discrepancy between desires and concerns
Would you have liked to continue working at the Garcia department?	What are the reasons why you would or would not have liked to continue working at the Garcia department? What were the main obstacles, according to you, to continuing or not continuing? What measures/conditions might have pushed you to continue your research activity in the Garcia department?	Moving
What kind of activities would be useful to postdoctoral or other researchers to facilitate their careers?	For instance: Mentoring activities; training on writing academic articles; publication strategy; writing a research proposal; how to submit an application, etc.)	Suggestions of specific activities needed by researchers at the early career stage

Questions	Additional questions	Rationale
What interventions of social and employment policies could improve the quality of life – professional and private– of PhD holders in your position?	What policies would be useful in improving your work and private/family prospects (income support, social security policies, the universality of the rights of health and parenting, easier access to bank loans, independent housing, unemployment benefits, illness, maternity/paternity/parental leaves, services, etc.)?	Effectiveness of welfare states
How do you imagine the future for young researchers in your field?	What measures could ensure greater job security for persons working in this field?	Images of the future in research fields

At the end of the interview, remember to collect the socio-demographic characteristics:

- Academic fields
- Sex
- Age
- Nationality/Ethnicity/Mother Tongue
- Educational degrees of parents
- Profession sof parents
- Relationship status *(in couple/married, single, etc.)*
- Housing *(rented or owned)*
- Co-habitation *(living in a couple, with friends, colleagues, parents, etc.)*
- Children *(number and age)*
- Partner/Spouse's occupation *(Type of work; Part/Full time; Type of employment contract)*
- Interviewee's current occupation *(Type of work; Part/Full time; Type of employment contract)*
- Interviewee's income *(net monthly)*
- Partner/Spouse's income *(net monthly)*

Appendix 4

Web Survey Questionnaire

MODULE 1. PhD

M1_1   Do you hold a PhD degree?
1. Yes
2. I am currently a PhD student
3. No

M1_2A When did you start your PhD?   year_____

M1_2B When did you finish your PhD?   year_____

M1_3   In which country did you obtain/are you doing your PhD?

M1_4   In which field of science have you conducted your PhD research?

M1_5   Were/are you financially supported during your PhD? If yes, please mention your main financial support.
1. Fellowship, scholarship or salary from an institution from the country of your PhD certification
2. Fellowship, scholarship from abroad
3. Teaching and/or assistantship
4. Income from employment other than teaching or research
5. Private/Employer reimbursement or assistance
6. Loan, personal savings, support from spouse, partner or family
7. Unemployment benefits
8. Other
9. No financial support

M1_6   Deciding to do PhD research was:

a. On the suggestion of your PhD supervisor   Yes/No
b. Developed during a contractual research project Yes/No
c. On the suggestion of a company   Yes/No
d. Other. Please specify   Yes/No

M1_7   Did/does your PhD research involve:

	Never	Rarely	Somewhat	Often	Mostly
a. Theoretical work	1	2	3	4	5
b. Field work	1	2	3	4	5
c. Laboratory work	1	2	3	4	5
d. Working with companies	1	2	3	4	5
e. Project management	1	2	3	4	5
f. Administrative duties	1	2	3	4	5
g. Teaching activities	1	2	3	4	5
h. Other. Please specify:	1	2	3	4	5

M1_8   Your main PhD thesis supervisor/promotor is/was:
1. Male
2. Female

M1_9 Overall, how would you describe your relationship with your PhD supervisor?
1. Friendly & supportive
2. Friendly & unsupportive
3. Conflictual & supportive
4. Conflictual & unsupportive
5. No relationship (very few contacts) & supportive
6. No relationship (very few contacts) & unsupportive

M1_10 Overall, how would you describe your relationship with your colleagues at the PhD institution?
1. Friendly & supportive
2. Friendly & unsupportive

3. Conflictual & supportive

4. Conflictual & unsupportive

5. No relationship (very few contacts) & supportive

6. No relationship (very few contacts) & unsupportive

M1_11 At the end of that period, were you considering a scientific career? Please rate your consideration on a 5-point scale:

1 Not at all considering

2

3

4

5 Fully considering

M1_12 How much has your relationship with your PhD supervisor influenced your scientific prospects?

1. Not at all

2. Slightly

3. Somewhat

4. Moderately

5. Extremely

CROSSROAD 1. Select who is currently working in Garcia Institutions

C1_1   Are you currently working with a research position in one of the following institutions?

1	University of Trento
2	Université catholique de Louvain
3	Radboud University
4	Université de Lausanne
5	Fran Ramovš Institute of the Slovenian Language
6	University Ljubljana
7	University of Iceland
8	No, I am not currently working in one of those institutions -> Go to Crossroad 2

C1_2 In which department/faculty are you currently working at #Institution#

C1_3 Your current position is? (List of the possible positions) Go to PROFILE 1

CROSSROAD 2. Movers

C2_1 Between 01/01/2010 and 31/12/2014, did you hold: - a post-doc or an equivalent temporary research position or- a tenure track position or- the first permanent academic position in one of the following institutions?

1	University of Trento
2	Université catholique de Louvain
3	Radboud University
4	Université de Lausanne
5	Fran Ramovš Institute of the Slovenian Language
6	University Ljubljana
7	University of Iceland
8	No, I am not currently working in one of those institutions -> exit: thank you for your time!

C2_2   In which department/faculty did you work at #Institutio#

C2_3   Your position was? (List of the possible positions)

MODULE 2. Only movers - Research position between 1/1/2010-31/12/2013 in Garcia institution

M2 When did you START and END that research position?

Start: year_____

End: year_____

M2_1 Your position/contract was….

     1. Permanent

     2. Temporary

     3. Does not apply

M2_2   Your position/contract was….
      1. Full-Time
      2. Part-Time ⬭ M2_3 how many hours a week according to the contract?
      _____
      3. Does not apply

M2_4   Did your contract include teaching duties?   Yes/No
M2_5   Was it a tenure track position? Yes/No
M2_6   Did you obtain your PhD at the same institution? Yes/No
M2_7   Was it your first post-doc position? Yes/No
M2_8   How many postdoc research positions had you had before?
M2_9   How did you hear of that research position?
      a. Public advertisement   Yes/No
      b. Previous colleagues   Yes/No
      c. Professional network   Yes/No
      d. PhD supervisor   Yes/No
      e. Relatives/acquaintances   Yes/No
      f. Other [Please specify : 40 characters]   Yes/No

M2_10 In which scientific field did you do most of that research?
M2_11 For what reasons did you take that research position? Please rate the following items on a scale from 1 (not relevant at all) to 5 (very relevant)?

	Not relevant at all				Very relevant
a. Additional specialization in your research field	1	2	3	4	5
b. International experience	1	2	3	4	5
a. Additional specialization in your research field	1	2	3	4	5
d. Work with a specific person or research team	1	2	3	4	5
e. Opportunity to undertake teaching activities	1	2	3	4	5

	Not relevant at all				Very relevant
f. Other employment opportunities not available	1	2	3	4	5
g. This position is generally expected for a career in this field	1	2	3	4	5
h. Flexibility of the position/autonomy	1	2	3	4	5
i. Work in a specific institution	1	2	3	4	5
j. Work on a specific topic	1	2	3	4	5
k. A specialization in a new research field	1	2	3	4	5
l. Other (please specify)	1	2	3	4	5

M2_12 Was your research supervisor a…

1. male

2. female

3. I did not have a supervisor [Skip next question]

M2_13 Overall, how would you describe your relationship with your research supervisor?

a. Friendly & supportive

b. Friendly & unsupportive

c. Conflictual & supportive

d. Conflictual & unsupportive

e. No relationship (very few contacts) & supportive

f. No relationship (very few contacts) & unsupportive

M2_14 Overall, how would you describe your relationship with your colleagues/ research team in this institution?

a. Friendly & supportive

b. Friendly & unsupportive

c. Conflictual & supportive

d. Conflictual & unsupportive

e. No relationship (very few contacts) & supportive

f. No relationship (very few contacts) & unsupportive

M2_15 Did that research activity involve on a 5-points scale:

	Never	Rarely	Somewhat	Often	Mostly
a. Theoretical work	1	2	3	4	5
b. Field work	1	2	3	4	5
c. Laboratory work	1	2	3	4	5
d. Working with companies	1	2	3	4	5
e. Project management	1	2	3	4	5
f. Administrative duties	1	2	3	4	5
g. Teaching activities	1	2	3	4	5
h. Other. Please specify:	1	2	3	4	5

M2_16 Please rate your satisfaction with that job:

	Very dissatisfied				Very satisfied
a. Salary	1	2	3	4	5
b. Benefits	1	2	3	4	5
c. Job security	1	2	3	4	5
d. Job location	1	2	3	4	5
e. Working conditions	1	2	3	4	5
f. Opportunity for advancement	1	2	3	4	5
g. Intellectual challenge	1	2	3	4	5
h. Level of responsibility	1	2	3	4	5
i. Degree of independence	1	2	3	4	5
j. Contribution to society	1	2	3	4	5
k. Relationship with superior/supervisor	1	2	3	4	5
l. Relationship with colleagues	1	2	3	4	5
m. Nature of the supervision/help from your senior					
n. Overall level of satisfaction with that job					

M2_17 How satisfied were you with the balance between the time you spent on your paid work and the time you spent on other aspects of your life in that period?

     1=very satisfied

     2

     3

     4

     5=very dissatisfied

M2_18 Did you have other paid jobs during that period? Yes/No

M2_19 If Yes, how many other paid jobs?_____

M2_20 Please estimate the average number of hours you usually worked during a typical week in that period. ____ [hours]

M2_21 At the end of that period, were you considering a scientific career? Please rate your consideration on a 5-point scale:

     1 Not at all considering

     2

     3

     4

     5 Fully considering

CROSSROAD 3. Movers > Current position

C3_1 What is your current employment status?

Employed -> Go on to next question

Unemployed or Inactive -> Go to Profile 3

C3_2 What is your main job?

You hold a :

1. Research or teaching position at a university or in higher education [Go to Profile 1]

2. Research position in a Research centre or R&D office in the public (government) sector (different from university) [Go to Profile 1]

3. Research position in a research centre or R&D office in the private sector [Go to profile 1]

Or you hold a non-research position in:

4. Business enterprise sector [Go to Profile 2]

5. Private non-profit sector [Go to Profile 2]

6. Government sector [Go to Profile 2]

7. Higher education sector/University [Go to Profile 2]

8. Other education sector [Go to Profile 2]

9. Other [Please specify: (open field w/ 40 characters?)] [Go to Profile 2]

C3_3

For C3_2==1 or 2(research position at university or public research centre)

Are you:

1. Full professor

2. Associate professor

3. Assistant professor

4. Post-doc

5. Other positions_ please specify_____-

For C3_2==3

Are you:

1	Self-employed with employees
2	Self-employed without employees
3	Freelance/consultant
4	Employee
5	Other. Please specified

C3_4   Can you please enter the exact title of your position?

C3_5   When did you start this position?

C3_6   In which country are you currently working?

MODULE 3. Current position

PROFILE 1 - People who are currently working as researcher at a university or in a research centre

P1_1   Your current position/contract is:
1. Permanent
2. Temporary
3. Does not apply

P1_2   Your current position/contract is:
1. Full time (skip next question)
2. Part time
3. Does not apply

P1_3   How many hours a week according to the contract?

P1_4   Does your contract include teaching duties?
1. Yes
2. No
3. Does not apply

P1_5   Is it a tenure track position?
1. Yes
2. No
3. Does not apply

P1_6   Did you obtain your PhD at the same institution where you are currently working?
1. Yes
2. No
3. Does not apply

P1_7   Is it your first post-doc position?
1. Yes (skip next question)
2. No
3. Does not apply

P1_8   How many post-doc research positions did you have before?

P1_9   How did you hear of this position?
a. Public advertisement   Yes/No
b. Previous colleagues   Yes/No
c. Professional network   Yes/No
d. PhD supervisor   Yes/No
e. Relatives/acquaintances   Yes/No
f. Other [Please specify : 40 characters]   Yes/No

P1_10 In which scientific field do you conduct your research?

P1_11 For what reasons did you take this position? Please rate the following items on a scale from 1 (not relevant at all) to 5 (very relevant)?

	Not relevant at all				Very relevant
a. Additional specialization in your research field	1	2	3	4	5
b. International experience	1	2	3	4	5
a. Additional specialization in your research field	1	2	3	4	5
d. Work with a specific person or research team	1	2	3	4	5
e. Opportunity to undertake teaching activities	1	2	3	4	5
f. Other employment opportunities not available	1	2	3	4	5
g. This position is generally expected for a career in this field	1	2	3	4	5

	Not relevant at all				Very relevant
h. Flexibility of the position/autonomy	1	2	3	4	5
i. Work in a specific institution	1	2	3	4	5
j. Work on a specific topic	1	2	3	4	5
k. A specialization in a new research field	1	2	3	4	5
l. Other (please specify)	1	2	3	4	5

P1_12 Did that research activity involve on a 5-point scale:

	Never	Rarely	Somewhat	Often	Mostly
a. Theoretical work	1	2	3	4	5
b. Field work	1	2	3	4	5
c. Laboratory work	1	2	3	4	5
d. Working with companies	1	2	3	4	5
e. Project management	1	2	3	4	5
f. Administrative duties	1	2	3	4	5
g. Teaching activities	1	2	3	4	5
h. Other. Please specify:	1	2	3	4	5

P1_13 Your research supervisor is a…

1. male
2. female
3. I do not have a supervisor [Skip next question]

P1_14 Overall, how would you describe your relationship with your research supervisor?

a. Friendly & supportive
b. Friendly & unsupportive
c. Conflictual & supportive
d. Conflictual & unsupportive
e. No relationship (very few contacts) & supportive

f. No relationship (very few contacts) & unsupportive

P1_14 Overall, how would you describe your relationship with your colleagues/ research team in this institution?

a. Friendly & supportive

b. Friendly & unsupportive

c. Conflictual & supportive

d. Conflictual & unsupportive

e. No relationship (very few contacts) & supportive

f. No relationship (very few contacts) & unsupportive

PROFILE 2 - People who are currently working as researcher at a university or in a research centre

P2_1   Are you:

1. self-employed with employees

2. self-employed without employees

3. freelance/consultant

4. employee with a work contract of unlimited duration (permanent contract)

5. other_____

P2_2   Can you please enter the exact title of your position?

P2_3   When did you start this position?

P2_4   In which country are you currently working?

P2_5   Your current position/contract is:

1. Permanent

2. Temporary

3. Does not apply

P2_6   Your current position/contract is:

1. Full time (Skip next question)

2. Part time

3. Does not apply

P2_7   How many hours a week according to the contract?

P2_8a To what extent do you use the skills acquired during your PhD in your current job?
1. Not at all
2. Rarely
3. Sometimes
4. Often
5. Almost all the time

P2_8b How relevant were the following issues in your decision to leave your research career?

	Not relevant at all				Very relevant
a. I was no longer interested in research	1	2	3	4	5
b. There were no job opportunities in research	1	2	3	4	5
c. Low remuneration	1	2	3	4	5
d. Poor working conditions	1	2	3	4	5
e. Unclear long term career prospects	1	2	3	4	5
f. Interpersonal conflict with colleagues / g. research team	1	2	3	4	5
g. This position is generally expected for a career in this field	1	2	3	4	5
h. Competitive environment	1	2	3	4	5
i. Personal issue	1	2	3	4	5
j. Health issue	1	2	3	4	5
k. Other. Please specify:	1	2	3	4	5

P2_9   How much has your relationship with your supervisor/superior influenced your decision to leave your scientific career?
1. Not at all

2. Slightly

3. Somewhat

4. Moderately

5. Extremely

P2_10 Are you considering changing your current job for a research career in the next three years?

1 Fully not considering

2

3

4

5 Fully considering

PROFILE 1 & PROFILE 2 - Job satisfaction

P12_1   Please rate your satisfaction with that job:

	Very dissatisfied				Very satisfied
a. Salary	1	2	3	4	5
b. Benefits	1	2	3	4	5
c. Job security	1	2	3	4	5
d. Job location	1	2	3	4	5
e. Working conditions	1	2	3	4	5
f. Opportunity for advancement	1	2	3	4	5
g. Intellectual challenge	1	2	3	4	5
h. Level of responsibility	1	2	3	4	5
i. Degree of independence	1	2	3	4	5
j. Contribution to society	1	2	3	4	5
k. Relationship with superior/supervisor	1	2	3	4	5
l. Relationship with colleagues	1	2	3	4	5
m. Nature of the supervision/help from your senior	1	2	3	4	5

	Very dissatisfied				Very satisfied
n. Overall level of satisfaction with that job	1	2	3	4	5

P12_ST_2   How satisfied are you with the balance between the time you spend on your paid work and the time you spend on other aspects of your life?
1=very satisfied
2
3
4
5=very dissatisfied

P12_2 Do you have other paid jobs during that period? Yes/No

P12_3   If Yes, how many other paid jobs?

P12_4 Please estimate the average number of hours you usually work in a typical week.

WORK-LIFE BALANCE - ONLY FOR WHO IS CURRENTLY WORKING IN GARCIA'S BENEFICIARY DEPARTMENTS

WLB_1 How do you feel about the following items:

	Not at all	Rarely	Sometimes	Often	Almost all the time
a. I come home from work too tired to do things I would like to do.	1	2	3	4	5
b. My personal life suffers because of my work.	1	2	3	4	5

	Not at all	Rarely	Sometimes	Often	Almost all the time
c. I have to miss out on important personal activities due to the amount of time I spend doing work.	1	2	3	4	5
d. My job gives me energy to pursue activities outside work that are important to me.	1	2	3	4	5
e. The things I do at work help me deal with personal and practical issues at home.	1	2	3	4	5

WLB_2 How do you feel about the following items:

	Not at all	Rarely	Sometimes	Often	Almost all the time
a. My work suffers because of things going on in my personal life	1	2	3	4	5
b. I am too tired to be effective at work because of things going on in my personal life.	1	2	3	4	5
c. When I am at work, I worry about things I need to do outside work.	1	2	3	4	5
d. I am in a better mood at work because of everything I have going for me in my personal life	1	2	3	4	5
e. My personal life helps me relax and feel ready for the next day's work.	1	2	3	4	5

ST_2   Thinking about your current job, how often you feel that…

	Never	Rarely	Sometimes	Often	Very Often
a. conditions at work are unpleasant or sometimes even unsafe.	1	2	3	4	5
b. your job is negatively affecting your physical or emotional wellbeing.	1	2	3	4	5
c. you have too much work to do and/or too many unreasonable deadlines.	1	2	3	4	5
d. you find it difficult to express your opinions or feelings about your job conditions to your superiors.	1	2	3	4	5
e. you feel that job pressures interfere with your family or personal life.	1	2	3	4	5
f. you have adequate control or input over your work duties.	1	2	3	4	5
g. you receive appropriate recognition or rewards for good performance.	1	2	3	4	5
h. you are able to use your skills and talents to the fullest extent at work.	1	2	3	4	5

PROFILE 1 & PROFILE 2 - Future expectations

F_1   Are you considering continuing with a scientific career? Please rate your consideration on a 5-points scale:

1 Not at all considering

2

3

4

5 Fully considering

F_2   In which job are you considering continuing with your career?

a. With my current job	Yes	No
b. research or teaching position at university or in higher education	Yes	No
c. research position in a research centre or R&D office in the public (government) sector (different from university)	Yes	No
d. research position in a research centre or R&D office in the private sector	Yes	No
e. Non-research position in the business enterprise sector	Yes	No
f. Non-research position in the private non-profit sector	Yes	No
g. Non-research position in the government sector	Yes	No
h. Non-research position in other education sector	Yes	No
i. Other. Please specify:	Yes	No

PROFILE 3 - Unemployed (Only Mover)

P3_1   Have you ever worked between the end of the last research position at the <garcia institution> and now? Yes/No

P3_2   How many months did you work from the end of the last research position at the <garcia insitution> and now? _ _ _ [months]

P3_3   What was your main job during these months? You held a…

1. Research or teaching position at a university or in higher education

2. Research position in a research centre or R&D office in the public (government) sector (different from university)

3. Research position in a research centre or R&D office in the private sector

Or you held a non-research position in:

4. Business enterprise sector

5. Private non-profit sector

6. Government sector

7. Higher education sector/University

8. Other education sector

9. Other. Please specify:

P3_4   How long have you been unemployed? Months: _____-

P3_5   Have you received any unemployment benefits, social insurance contributions during this period? Yes/No

P3_6   Are you currently looking for a job? Yes/No

P3_7   What job are you considering? Find a

1. research or teaching position at a university or in higher education	Yes	No
2. research position in a research centre or R&D office in the public (government) sector (different from university)	Yes	No
3. research position in a Research centre or R&D office in the private sector	Yes	No
4. Non-research position in the business enterprise sector	Yes	No
5. Non-research position in the private non-profit sector	Yes	No
6. Non-research position in the government sector	Yes	No
7. Non-research position in other education sector/university	Yes	No
8. Non-research position n other education sector	Yes	No
9. Other. Please specify:	Yes	No
10. Do not know		

P3_8   Are you considering continuing with a scientific career?:

1 Not at all considering

2

3

4

5   Fully considering

P3_9   In this period, do you submit projects for financial support? Yes/No

P3_10   How much do you agree with the following statements:

	Totally disagree				Totally agree
a. My PhD prepared me well for jobs in the academic sector	1	2	3	4	5
b. My PhD prepared me well for jobs in the private sector	1	2	3	4	5
c. A PhD is an added value in the actual labour market	1	2	3	4	5
d. My experience is too specialized for the actual labour market	1	2	3	4	5

FOR ALL - Health issues & Life satisfaction

H_1 All in all, how would you describe your state of health these days? Would you say it is
1 Very bad
2 Poor
3 Fair
4 Good
5 Very good

H_2 All things considered, how satisfied are you with your life as a whole these days?
1 Completely dissatisfied
2
3
4
5 Completely satisfied

Mobility & publications

How many times did you spend periods abroad at another university for research and/or teaching activities?

MP_1   Short stays (<1 month):   _ _

MP_2   Medium stays (between 1 and 4 months):   _ _

MP_3   Long stays (between 4 and 12 months):   _ _

MP_4   Stays longer than 1 year:__

MP_5   Concerning those stays, did you received/use:

a. Marie-Curie fellowship	Yes/No
b. Other international fellowship	Yes/No
c. Other national fellowships	Yes/No
d. Funding from research groups	Yes/No
e. Personal resources	Yes/No
f. Other. Please specify:	Yes/No

MP_6   Have you ever been:

a. Member of the board of a national scientific association/research network	Yes/No
b. Coordinator or responsible of a national scientific association/ research network	Yes/No
c. Member of the board of an international scientific association/ research network	Yes/No
d. Coordinator or responsible of a international scientific association/ research network	Yes/No
e. Featured speaker at a national conference	Yes/No
f. Featured speaker at an International conference	Yes/No

MP_4 How many publications do you have in

a. International peer-reviewed journal articles :   _ _

b. National peer-reviewed journal articles :   _ _

c. Scientific journal articles (without peer-review):   _ _

d. Books _ _

e. Book-chapters:_ _

Socio-demographic information

D_1   Are you:

1. Female

2. Male

D_2   What is your year of birth?

D_3   Country of birth:

D_4   Are you currently….

1. Single -> *skip the part on partner*

2. In a relationship but not married

3. Married

4. A civil partner in a legally-recognized civil partnership

Partner

D_5   What is the highest level of education that your partner successfully completed?

1. Primary education or below

2. General secondary education

3. Vocational education and training

4. Higher education ->

5. No studies

D_6   Does s/he have a PhD?

1. Yes

2. Is she/he a PhD student

3. No

D_7   What is her/his main job?

1. Research or teaching position at a university or in higher education

2. Research position in a research centre or R&D office in the public (gvernment) sector (different from university)

3. Research position in a research centre or R&D office in the private sector

With a non-research position in:

4. Business enterprise sector

5. Private non-profit sector

6. Government sector

7. Higher education sector/University

8. Other education sector

9. Other. Please specify:

10. S/He in unemployed/inactive

For all

D_8   How many persons usually live in your household?

Do you live…

D_9   With your parents? Yes/No

D_10   With your partner? Yes/No

D_11   With your children? Yes/No

D_12   Regarding your accommodation…

1	you own it
2	you are buying it with the help of a mortgage or loan
3	you are paying part rent and part mortgage (shared ownership)
4	you are renting it
5	you are living there rent-free (including rent-free in relative's/friend's property; excluding squatting)
6	you are squatting

D_13   Do you have children?

1. Yes

2. No *[Skip the part of children]*

Children

D_14　　How many children do you have?

	Year of birth	Maternity leave	Paternity leave	Parental leave
Child 1	Yes/No	Yes/No	Yes/No	Yes/No
Child 2	Yes/No	Yes/No	Yes/No	Yes/No
Child 3	Yes/No	Yes/No	Yes/No	Yes/No
(…)	Yes/No	Yes/No	Yes/No	Yes/No
Child N...	Yes/No	Yes/No	Yes/No	Yes/No

Economic situation

D_15　Which of the following descriptions comes closest to how you feel about your household's income nowadays?
1 Living comfortably on present income
2 Coping on present income
3 Finding it difficult on present income
4 Finding it very difficult on present income
5 (Don't know)

D_16　　How satisfied are you with the financial situation of your household?
1 Completely dissatisfied
2
3
4
5 Completely satisfied

Social origins

D_17　　What is the highest level of education that your father successfully completed?
1. Primary education or below
2. General secondary education

3. Vocational education and training
4. Higher education
5. No studies

D_18   What is the highest level of education that your mother successfully completed?
1. Primary education or below
2. General secondary education
3. Vocational education and training
4. Higher education
5. No studies

D_19   People sometimes describe themselves as belonging to the working class, the middle class, or the upper or lower class. Would you describe yourself as belonging to the:
1. Upper class
2. Upper middle class
3. Lower middle class
4. Working class
5. Lower class

D_20   Did/do any of your parents OR relatives (father, mother, aunt, uncle, etc.) lead a scientific career?
1. Yes
2. No

Last part

TEXT1 In another step of our project, we intend to conduct in-depth interviews about the early stages of academic and scientific careers. Would you be available for an interview at a future time? If yes, please indicate how we can contact you.
_____---

TEXT2 The questionnaire is now concluded. If you have any comments, please write them here:

Thank you for your time!
GARCIA research team

Details on CROSSROAD 1 and CROSSROAD 2

GARCIA institutions	In which department/ faculty did/do you work? (Questions C1_2 & C2_2)	Your position was/is: (Questions C1_3 & C2_3)
University of Trento (Italy)	1. Department of Sociology and Social Research (DSRS) 2. Department of Information Engineering and Computer Science (DISI)	1. Post-doc research fellow 2. Fixed term researcher (type A, type B or "Moratti") 3. Permanent assistant professor 4. Associate professor 5. Full professor 6. Research collaborator 7. Research assistant 8. Other. Please specify:
Université catholique de Louvain (Belgium)	1. Institute for the Analysis of Change in Contemporary and Historical Societies (IACCHOS) 2. The Earth and Life Institute (ELI)	1. Research Associate FNRS 2. Senior research associate 3. Director of research 4. Adjunct researcher 5. Assistant researcher 6. Engineer 7. Temporary researcher (non-PhD, ongoing PhD, postdoc) 8. Associate professor 9. Full professor 10. Other. Please specify:
Radboud University (The Netherlands)	1. Institute for Management Research (IMR) 2. Institute for Mathematics, Astrophysics and Particle Physics (IMAPP)	1. Researcher (with a permanent position) 2. Lecturer (with a permanent position) 3. Researcher (with a temporary position) 4. Lecturer (with a temporary position) 5. Assistant professor (UD) (with a permanent position) 6. Assistant professor (UD) (with a temporary position) 7. Associate professor (UHD) (with a permanent position) 8. Associate professor (UHD) (with a temporary position) 9. Full professor 10. Other. Please specify:

GARCIA institutions	In which department/ faculty did/do you work? (Questions C1_2 & C2_2)	Your position was/is: (Questions C1_3 & C2_3)
Université de Lausanne (Switzerland)	1. Faculty of Social and Political Sciences 2. Faculty of Biology and Medicine	1. Full professor 2. Associate professor 3. Assistant professor with tenure track 4. Assistant professor without tenure track 5. Professeur-e-s boursiers/sières SNSF 6. Maître-sse d'enseignement et de rechercher (MER) 7. Maître-sse assistant-e 8. SNFS Ambizione grant holder 9. Permanent responsable/chargé-e de recherche (with PhD) 10. Non-permanent responsable/ chargé-e de recherche (with PhD) 11. SNFS Senior researcher 12. Assistant with PhD (Premier/mière assistant-e) 13. Assistant without PhD 14. Non-permanent responsable/ chargé-e de recherche (without PhD) 15. Other. Please specify:
Fran Ramovš Institute of the Slovenian Language (Slovenia)		1. Assistant professor 2. Senior lecturer 3. Assistant researcher 4. Assistant researcher (with PhD) 5. Young researcher (without PhD) 6. Assistant (pedagogue) 7. Research fellow 8. Research advisor 9. Associate professor 10. Full professor 11. Other. Please specify:
University Ljubljana (Slovenia)	Department of Agronomy/ Biotechnical Faculty	

GARCIA institutions	In which department/ faculty did/do you work? (Questions C1_2 & C2_2)	Your position was/is: (Questions C1_3 & C2_3)
University of Iceland (Iceland)	1. Faculty of Political Science 2. Faculty of Physical Sciences 3. Faculty of Civil and Environmental Engineering 4. Faculty of Earth Sciences 5. Faculty of Electrical and Computer Engineering 6. Faculty of Industrial Eng., Mechanical Eng. and Computer Science 7. Faculty of Life And Environmental Sciences 8. Faculty of Business Administration 9. Faculty of Economics 10. Faculty of Law 11. Faculty of Social and Human Sciences 12. Faculty of Social Work 13. Other. Please specify:	1. Research specialist 2. Assistant professor 3. Adjunct (I, II and III) 4. Seasonal teacher 5. Research scientist 6. Research specialist 7. Research scholar 8. Associate professor 9. Full professor 10. Other. Please specify:

Appendix 5

Interview guide for exploring actual practices in recruitment procedures

1. Abstract requirements	
Main question	**Follow up topics**
1. What criteria do you use to select candidates for a postdoc/assistant professor position?	First, ask clarifying and concretizing questions on the criteria mentioned: - What do you mean by …? - Can you give an example? - Why is that important? - How does a candidate show that she/he meets these criteria?
2. Do you consider …. an important criterion for a postdoc/assistant professor position?	Second, if the interviewee is not able to mention other criteria, please ask about criteria that are not mentioned but are relevant to your context:

1. Abstract requirements	
	- Education (institution that awarded the PhD, topic of the PhD, PhD supervisor, etc.). - Teaching experience: experience with lecturing, seminar groups, thesis supervision. - Research: participation in research projects (number of projects and position therein), number of publications, journals and ranking, single/collective authorship, publications with supervisor. - Acquiring research funding: how much, and what funding organisation? - Management experience/committee work - International mobility/experience/ network: duration of visit, location/ institution, international collaborations - Service/outreach: media appearances, public lectures/debates, consultancy, advice. - Fit in team: someone who fits in the team's culture / brings lacking expertise. - Personality/attitude of the candidate (analytical/creative/communicative, motivation/enthusiasm/energy/physical appearance, etc.).
3. What are the most important criteria in your specific academic field?	This question is meant to uncover possible disciplinary differences (ask clarifying and concretizing questions on responses).
4. How would you describe the difference between a candidate with minimal requirements and a really excellent candidate?	Try to find out what the "ideal candidate" looks like? And what the minimum requirements for the position are.

2. Actual selection (process)	
Main question	Follow up topics
5. Can you think of the latest appointment of a postdoc/assistant professor position in which you were involved? Can you shortly describe the course of the selection process?	Make sure the appointment applies to the department under study.

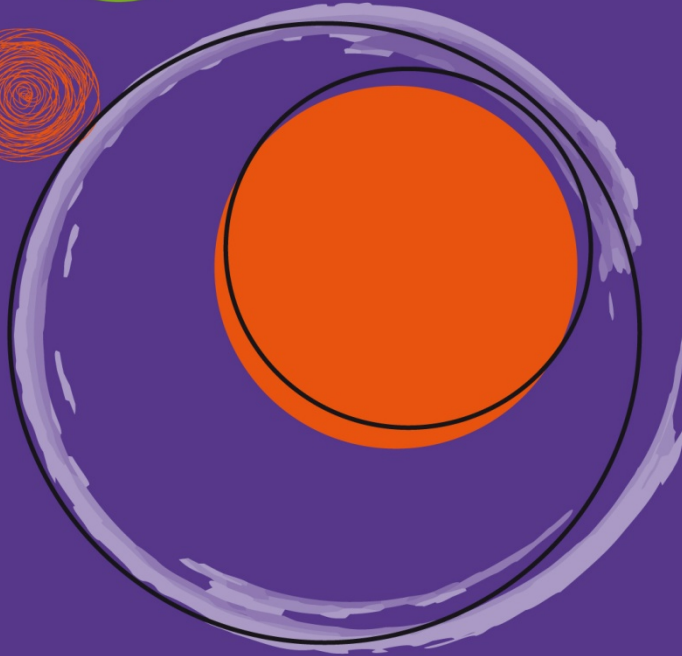| 2. Actual selection (process)	
6a. What was the composition of the committee? (Number/position of people, women) 6b. Was it formal and/or informal recruitment?	In the case of formal recruitment, there is a standard procedure: i.e. the vacancy is announced publicly (internet, newspapers, journals). In the case of informal recruitment, the call is informally circulated or candidates are invited to apply through informal networks.
7. How did the decision making process go within the committee?	Ask clarifying and concretizing questions on responses: - Did you easily reach a consensus? - What did you do if you disagreed? - If you disagreed, what was the main point of discussion?
8a. What were the decisive criteria in the selection of the appointed candidate? 8b. Were the decisive criteria used to select the appointed candidate mentioned in the formal job description?	Which of the criteria in question were the most important for the respondent in selecting the candidate?