
Assumptions and Implementation of Smart Growth and Inclusive Growth Targets under the Europe 2020 Strategy

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Abstract:

Purpose: The essence of the "Europe 2020" initiative, that is, the strategy for smart, sustainable and inclusive growth, is an attempt at creating conditions fostering long-term sustainable economic growth in the European Union. To this end, economies based on knowledge, promoting environment-friendly technologies must be built in the member states of the Community, at the same time taking care to maintain social and territorial cohesion.

Design/Methodology/Approach: This paper contains a long-term analysis of selected indicators in the period 2000-2016 and an assessment of their accomplishment. This paper aims at verifying the hypothesis that prolonged economic problems of European economies undermine the success and timely accomplishment of certain priorities of the Strategy.

Findings: In connection with a relatively high level of unemployment and unfavourable demographic structure in many EU member states, as well as a public finance policy aiming to mitigate the effects of financial downturn, the success of the Strategy requires a longer time horizon. Many EU member states clearly improved their results in the area of innovation through increasing their R&D expenditure and the number of tertiary education graduates.

Practical Implications: An alarming phenomenon is deepening difficulties finding a job in the European employment market, in particular for young people, and a relatively high risk of poverty and social exclusion (on average 23.5% in EU-28). This may mean that the common road to the accomplishment of the targets of Europe 2020 Strategy can be longer than the projected time horizon.

Originality/Value: It has boosted the process of building a knowledge-based economy and should create conditions for raising the employment rate, increasing efficiency and social cohesion.

Keywords: Europe 2020, performance indicators.

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1. Introduction

The Europe 2020 Strategy is an improved continuation of assumptions of the Lisbon Strategy tasked with changing the economy of the European Union in order to transform it into the most competitive and dynamic economy in the world. This goal will be accomplished by building a knowledge-based economy, developing the so-called information society, increasing expenditure on research and development (R&D) and their internationalization, and creating the optimum conditions for businesses that make use of innovations. The Lisbon strategy assumed embracing the decreasing productivity and the slowdown of economic growth and eliminating the competitive gap between the economies of the EU and the USA. The Europe 2020 Strategy also aims to introduce measures combating the effects of global economic crisis and long-term challenges on the account of globalization (e.g. aging societies or optimized utilization of resources) (Europe 2020: A strategy....).

An assumption of *Europe 2020 – Strategy for smart, sustainable and inclusive growth* is creating conditions for long-term sustainable economic growth in the member states of the European Union (Table 1). The programme was developed for 2010-2020 and the European Council approved it on 17 June 2010. Works under the Europe 2020 initiative are undertaken based on the unit called the European Semester (ES). This is a systematized series of measures designed to accomplish respective goals of the Strategy under which the European Commission in its Annual Growth Survey sets out the priorities of the EU for the following year. Based on adopted domains, National Reform Programmes (NRP) developed in respective member states and containing country-specific targets and measures to achieve them, are subject to updates (Europe 2020: A strategy....).

The assumptions of the Europe 2020 Strategy coincide with the concept of a European social market economy and are based on three interconnected and mutually complemented priorities [Europe 2020: A strategy....], i.e.:

- *smart growth* – developing an economy based on knowledge and innovation, raising the potential of the digital economy by increasing expenditure on research and development (roll-out of mechanisms supporting fast transmission of theoretical knowledge into economic practice) as well as developing and improving the quality of education.
- *sustainable growth* – measures oriented at growth in competitiveness and improved resource use efficiency in production processes, transfer to high technologies in the use of natural resources and creating new jobs;
- *inclusive growth* – fostering professional activity, skills upgrading and fighting poverty, delivering social and territorial cohesion.

The efficiency of the above-described common targets is to be supported by the so-called flagship initiatives at the level of EU organisations, member states as well as local and regional authorities. The status of accomplishment of the adopted priorities

is evaluated based on the analysis of a group of key performance indicators assigned to five headline growth targets. In comparison to the strategy of Lisbon (Kok, 2004), a new instrument for implementing the Europe 2020 Strategy is the so-called *flagship initiatives* aiming to accelerate and set the right direction for the performance of each target detailed in the Strategy (Sulmicka, 2011). The target values for the Europe 2020 Strategy are general and make reference to the EU as a single economic unit. However, due to the considerable economic and social differentiation of member states, for each of them it is acceptable to adopt an appropriate point of reference and target values realisable within the time horizon adopted in the Strategy (Table 1). Considering the specific characteristics of a given member state and its problem areas, a distinct means for target accomplishment can be used as well. This is linked to alignment of headline targets of the European Union adopted in the Strategy with country-specific targets and adopting relevant target accomplishment methods. An effect of measures undertaken by member states individually should be an accomplishment of common EU targets, including reinforcement of the global position of the EU.

2. Materials and Methods

The paper evaluates the status of indicators monitoring the performance of Strategy 2020 for respective EU-28 member states in 2000-2016. Indicators related to the accomplishment of smart growth and inclusive growth, such as: (1) rate of employment of people aged 20-64, (2) expenditure on research and development (R&D), (3) people aged 30-34 with a tertiary degree, (4) risk of poverty or social exclusion, and (5) deepened financial deprivation were analyzed. It aims to verify the hypothesis that prolonged economic problems of European economies dispute the success and timely performance of certain priorities of the Europe 2020 Strategy. In connection with a relatively high level of unemployment and unfavourable demographic structure in many EU member states, the success of the Strategy may require a longer time horizon. The paper employs descriptive analysis, statistical data analysis and comparative analysis methods.

3. Results

The rate of employment for the population aged 20-64 is one of the headline targets of the Europe 2020 Strategy. It monitors the increase in the level of employment of people aged 20-64 to 75% of employees in this age category for all member states of the Community. This task will be handled by, for instance, putting more women, young people and elderly on the employment market.

According to Eurostat's data for respective member states, each of them adopted a different value of this indicator to be achieved by 2020 (for example: Croatia 56%, Malta 62.9%, Poland 71%, Denmark, Netherlands and Sweden 80%) (Table 2, 4). Comparing data for 2000 and 2016 it can be concluded that in 2000 only in two member states, that is, Denmark and Sweden, did the percentage of employees in

Table 1. Targets and flagship initiatives of Europe 2020 Strategy

Headline targets of the Strategy
<ul style="list-style-type: none"> • 75% of the population aged 20–64 should be employed. • 3% of the EU’s GDP should be invested in research and development (R&D). • The “20/20/20” climate/energy targets should be met – greenhouse gas emissions reduced by 20% in comparison to 1990, share of renewable energy in total energy consumption increased to 20% and energy efficiency increased by 20%*. • The share of early school leavers should be under 10% and at least 40% of the population aged 30–34 should have a tertiary or equivalent degree. • At least 20 million less people should be at risk of poverty or social exclusion.
Flagship initiatives
<ul style="list-style-type: none"> • Youth on the move – improving the quality and enhancing the attractiveness of European tertiary education on an international arena by supporting the mobility of students and young specialists. • Innovation Union – using research and development activities and innovation to solve the most important problems (connected, among other things, with climatic changes, energy, but also an aging society) and elimination of the gap between the world of science and the market. • A digital agenda for Europe – achieving permanent economic and social benefits of a digital single market based on high-speed Internet. • Resource efficient Europe – measures to decouple economic growth from the use of resources, support the shift towards a low carbon economy increasingly using the potential offered by renewable energy sources. • An industrial policy for the globalisation era – enhancing the competitiveness of the EU industrial sector in the post-crisis business environment, supporting entrepreneurship and developing new skills. • An agenda for new skills and jobs – creating an environment to modernise labour markets with a view to increasing labour participation. • European platform against poverty – ensuring economic, social and territorial cohesion by supporting people experiencing poverty and social exclusion and enabling them to take an active part in society.

* The European Union will make the decision to reduce emission levels by 30 per cent by 2020 compared to levels from 1990, if other developed countries undertake to reduce their emissions comparably, and the developing countries contribute to the extent of their covenants and capabilities.

Source: http://www.stat.gov.pl/cps/rde/xbcr/gus/POZ_Wskazniki_Europa2020.pdf (accessed on 07.02.2019).

that age category exceed 75% (respectively: 77.9% and 76.3%). However, in 2016 as many as 5 member states reached the indicator level above 75%. Those were Lithuania (75.2%), Estonia (76.6%), Czech Republic (76.7%), Netherlands (77.1%), Denmark (77.4%), United Kingdom (77.6%), Germany (78.7%) and Sweden (81.2%). In a few cases the value of the indicator was higher than the reference value for the specific member state, such as for example: Croatia, Czech Republic, Estonia, Germany, Latvia, Lithuania and Sweden. This situation seems optimistic;

however, considering changes and problems in the EU employment market (fluctuations in the level of unemployment, United Kingdom possibly leaving the European Union), it must be assumed that the discussed process of increasing the level of employment will be subject to deep changes on a long-term basis.

According to Eurostat, on average in 2016 the rate of unemployment in the entire EU was 10.5%, whereas in 2012 it amounted to 10.9% (Table 2, 4). Member states where unemployment reached the highest level were Spain (19.6%) and Greece (23.6%). The fastest growth in that rate was recorded in Cyprus. Employment markets in Czech Republic (4.0%), Germany (4.1%), Malta (4.7%), United Kingdom (4.8%), Austria (4.9%), Germany (5.2%) and Luxembourg (5.8%) were the least affected by unemployment. The greatest decrease in the level of unemployment was noted in the countries of the former Eastern bloc. However, data for the European employment market with reference to the group of young people, that is, aged from 25 to 29, is alarming (Table 3, 4). In 2016, as much as 33.8% of young people in Greece were unemployed. In turn, in Spain and Italy the percentage of young people without jobs was respectively 25.6% and 21.9%. A two-digit number was also recorded in 2016 for Belgium (10.8%), Ireland (10.6%), France (13.3%), Croatia (19.0%), Cyprus (17.6%), Latvia (10.8%), Portugal (15.4%), Slovenia (14.3%), Slovakia (11.4%), and Finland (10.4%). The lowest level of unemployment among young people is noted in Germany (5.3%), Luxembourg (5.9%), Malta (4.5%), Netherlands (5.3%) and the United Kingdom (5.1%).

In terms of R&D expenditure, EU member states show a high level of differentiation (Table 5). In 2000, there was a relatively numerous group of member states whose expenditure on research and development did not exceed 1% of GDP. On the other hand, the said expenditure was relatively high in Finland (3.35% of GDP), Sweden (3.26% of GDP), Germany (2.39% of GDP), Denmark (2.19% of GDP) and France (2.08% of GDP). In 2016, the number of European countries with increased expenditure on research and development went up. The 3% level of R&D expenditure adopted in the Strategy was achieved in Austria (3.09% of GDP) and Sweden (3.23% of GDP). The above-mentioned countries set their R&D expenditure for 2020 at the level of 3.76 and 4.00 % of GDP, respectively. There were some other countries that either reached or exceeded their adopted targets for 2020; these are: Cyprus and Greece. As regards R&D expenditure in 2016, EU member states were strongly polarised, which to a great extent must be linked to the distinct structure of their economics. The above-mentioned innovation leaders were accompanied by a considerable group of member states whose expenditure on R&D was lower than 1% of GDP (Bulgaria, Croatia, Cyprus, Greece, Lithuania, Latvia, Malta, Poland, Romania and Slovakia) or oscillated around 1.5% of GDP (Czech Republic, Estonia, Hungary, Ireland, Italy, Luxembourg, Portugal, Spain, and United Kingdom). Comparing data from 2000 and 2016 it must be concluded that a definite majority of EU member states increased their R&D expenditure.

Table 2. Employment rate of persons aged 20-64 (annual averages) – total (in %) and unemployment rates of the population aged 25-64 by educational attainment level and unemployment rate by age - total (15- 74 years) (in %)

Country	Employment rate						Unemployment rate				
	2000	2004	2008	2012	2016	Goal 2020	2000	2004	2008	2012	2016
European Union (28)	.	67.2	70.3	68.4	71.0	75.0	10.3	10.6	11.1	10.9	10.5
Austria	70.7	68.4	73.8	74.4	74.8	77.0	4.7	5.8	4.1	4.9	6.0
Belgium	66.3	65.8	68.0	67.2	67.7	73.2	6.6	7.4	7.0	7.6	7.8
Bulgaria	56.5	61.2	70.7	63.0	67.7	76.0	16.2	12.1	5.6	12.3	7.6
Croatia	.	59.7	64.9	58.1	61.4	59.0	16.1	13.7	8.6	16.0	13.1
Cyprus	72.0	75.7	76.5	70.2	68.8	75.0	5.0	4.4	3.7	11.9	13.1
Czech Republic	70.9	70.1	72.4	71.5	76.7	75.0	8.8	8.2	4.4	7.0	4.0
Denmark	77.9	78.1	79.7	75.4	77.4	80.0	4.5	5.2	3.4	7.5	6.2
Estonia	67.5	70.2	77.1	72.2	76.6	76.0	13.4	10.2	5.5	10.0	6.8
Finland	72.3	72.5	75.8	74.0	73.4	78.0	11.1	10.4	6.4	7.7	8.8
France	67.4	69.2	70.5	69.4	70.0	75.0	10.2	8.9	7.1	9.4	10.1
Germany	68.7	67.9	74.0	76.9	78.7	77.0	7.9	10.7	7.5	5.4	4.1
Greece	62.1	64.3	66.3	55.0	56.2	70.0	11.3	10.3	7.8	24.5	23.6
Hungary	60.9	62.0	61.5	61.6	71.5	75.0	6.6	5.8	7.8	11.0	5.1
Ireland	70.1	71.0	72.2	63.7	70.3	69.0	4.3	4.5	6.4	14.7	7.9
Italy	57.1	61.7	62.9	60.9	61.6	67.0	10.9	7.9	6.7	10.7	11.7
Latvia	63.4	67.4	75.4	68.1	73.2	73.0	14.2	11.7	7.7	15.0	9.6
Lithuania	66.1	69.6	72.0	68.5	75.2	72.8	16.0	10.7	5.8	13.4	7.9
Luxembourg	67.5	67.7	68.8	71.4	70.7	73.0	2.3	5.1	5.1	5.1	6.3
Malta	57.5	57.3	59.2	63.1	69.6	62.9	6.3	7.3	6.0	6.3	4.7
Netherlands	74.2	74.9	78.9	76.6	77.1	80.0	2.7	4.7	2.8	5.8	6.0
Poland	61.1	57.0	65.0	64.7	69.3	71.0	16.1	19.0	7.1	10.1	6.2
Portugal	73.4	72.6	73.1	66.3	70.6	75.0	3.9	6.4	7.7	15.8	11.2
Romania	70.5	64.7	64.4	64.8	66.3	70.0	7.1	7.7	5.8	6.8	5.9
Slovakia	63.0	63.5	68.8	65.1	69.8	72.0	19.1	18.6	9.5	14.0	9.7
Slovenia	68.5	71.0	73.0	68.3	70.1	75.0	6.9	6.0	4.4	8.9	8.0
Spain	60.6	65.2	68.5	59.6	63.9	74.0	13.8	11.1	11.3	24.8	19.6
Sweden	76.3	77.8	80.4	79.4	81.2	80.0	5.5	6.7	6.2	8.0	7.0
United Kingdom	73.9	74.9	75.2	74.1	77.6	.	5.6	4.6	5.6	7.9	4.8

Source: Eurostat; www.stat.gov.pl/ (accessed on 27.02.2019).

Table 3. Unemployment rate by age from 25 to 29 years (in %)

Country	Unemployment rate				Dynamics: decrease↓ (2016 = 100,0%)	
	2005	2008	2012	2016	2016→2005	Increase↑, 2016→2012
European Union (28)	11.0	8.6	13.9	11.2	↑(1.8)	↓(24.1)
Austria	6.5	5.1	6.5	7.0	↑(7.1)	↑(7.1)
Belgium	10.4	9.0	11.1	10.8	↑(3.7)	↓(2.8)
Bulgaria	11.0	6.4	15.9	9.9	↓(11.1)	↓(60.6)
Croatia	15.7	10.2	24.1	19.0	↑(17.4)	↓(26.8)
Cyprus	6.9	4.8	15.7	17.6	↑(60.8)	↑(10.8)
Czech Republik	8.5	4.1	8.9	5.5	↓(54.5)	↓(61.8)
Denmark	5.5	3.4	11.0	9.4	↑(41.5)	↓(17.0)
Estonia	8.0	5.2	10.8	7.6	↓(5.3)	↓(42.1)
Finland	8.6	6.7	8.9	10.4	↑(17.3)	↑(14.4)
France	10.6	8.9	12.6	13.3	↑(20.3)	↑(5.3)
Germany	12.5	8.4	6.5	5.3	↓(135.8)	↓(22.6)
Greece	15.1	13.1	37.4	33.8	↑(55.3)	↓(10.7)
Hungary	8.1	9.0	13.8	6.3	↓(28.6)	↓(119.0)
Ireland	4.5	7.6	17.9	10.6	↑(57.5)	↓(68.9)
Italy	13.1	11.1	18.1	21.9	↑(40.2)	↑(17.4)
Latvia	9.8	8.5	14.6	10.8	↑(9.3)	↓(35.2)
Lithuania	6.4	6.1	14.3	7.2	↑(11.1)	↓(98.6)
Luxembourg	4.7	10.8	6.7	5.9	↑(20.3)	↓(13.6)
Malta	5.1	4.7	5.4	4.5	↓(13.3)	↓(20.0)
Netherlands	5.3	2.7	5.6	5.3	=(100.0)	↓(5.7)
Poland	20.2	8.2	13.1	8.1	↓(149.4)	↓(61.7)
Portugal	11.0	10.8	20.0	15.4	↑(26.6)	↓(29.9)
Romania	8.7	6.7	10.3	9.0	↑(3.3)	↓(14.4)
Slovakia	16.3	10.5	17.9	11.4	↓(43.0)	↓(57.0)
Slovenia	9.3	6.5	15.0	14.3	↑(35.0)	↓(4.9)
Spain	11.0	13.3	31.5	25.6	↑(57.0)	↓(23.0)
Sweden	10.6	6.7	9.5	7.8	↓(35.9)	↓(21.8)
United Kingdom	5.0	5.7	8.7	5.1	↑(2.0)	↓(70.6)

Source: Eurostat; www.stat.gov.pl/ (accessed on 27.02.2019).

Table 4. Division and order of states in 2016 according to the values of the Europe 2020 Strategy indicators

As cen din g	Employment rate of persons aged 20-64 (annual averages) – total (in %)				
	<60	60-65	65-70	70-75	>75
↑	Greece	Croatia Italy Spain	Romania Belgium Bulgaria Cyprus Poland Malta Slovakia	France Slovenia Ireland Portugal Luxembourg Hungary Latvia Finland Austria	Lithuania Estonia Czech Rep. Netherlands Denmark United Kingdom Germany Sweden
As cen din g	Unemployment rate by age - total (15- 74 years) (in %)				
	<5.0	5.0-10.0	10.0-15.0	15.0-20.0	>20.0
↑	Czech Rep. Germany Malta United Kingdom	Hungary Romania Austria Netherlans Denmark Poland Luxembourg Estonia Sweden Bulgaria Belgium Ireland Lithuania Slovenia Finland Latvia Slovakia	France Portugal Croatia Cyprus Italy	Spain	Greece
As cen din g	Unemployment rate by age from 25 to 29 years (in %)				
	<5.0	5.0-10.0	10.0-15.0	15.0-20.0	>20.0

↑	Malta	United Kingdom Netherlands Germany Czech Rep. Luxembourg Hungary Austria Lithuania Estonia Sweden Poland Romania Denmark Bulgaria	Finland Belgium Ireland Latvia Slovakia France Slovenia	Portugal Cyprus Croatia	Italy Spain Greece
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Source: Own list.

Table 5. Gross domestic expenditure on research and development activity (R&D) (in % of GDP)

Country	R&D						Dynamics: Increase↑, decrease↓ (2016 = 100,0%)	
	2000	2004	2008	2012	2016	Goal 2020	2016→2004	2016→2012
European Union (28)	1.77	1.75	1.84	2.01	2.03	3.00	↑(12.8)	↑(1.0)
Austria	1.89	2.17	2.57	2.91	3.09	3.76	↑(38.8)	↑(5.8)
Belgium	1.92	1.81	1.92	2.27	2.49	3.00	↑(22.9)	↑(8.8)
Bulgaria	0.50	0.47	0.45	0.60	0.78	1.50	↑(35.9)	↑(23.1)
Croatia	.	1.03	0.88	0.75	0.84	1.40	↑(22.6)	↑(10.7)
Cyprus	0.23	0.34	0.39	0.44	0.50	0.50	↑(54.0)	↑(12.0)
Czech Republic	1.11	1.15	1.24	1.78	1.68	.	↑(33.9)	↓(6.0)
Denmark	2.19	2.42	2.77	2.98	2.87	3.00	↓(23.7)	↓(3.8)
Estonia	0.60	0.85	1.26	2.12	1.28	3.00	↑(53.1)	↓(65.6)
Finland	3.25	3.31	3.55	3.42	2.75	4.00	↑(18.2)	↓(24.4)
France	2.08	2.09	2.06	2.23	2.22*	3.00	↑(6.3)	↓(0.5)
Germany	2.39	2.42	2.60	2.87	2.94	3.00	↑(18.7)	↑(2.4)
Greece	.	0.53	0.66	0.70	0.99	0.67	↑(46.5)	↑(29.3)
Hungary	0.79	0.86	0.98	1.26	1.21	1.80	↑(34.7)	↓(4.1)
Ireland	1.09	1.18	1.39	1.56	1.18	.	↑(7.6)	↓(32.2)
Italy	1.01	1.05	1.16	1.27	1.29	1.53	↑(21.7)	↑(1.6)
Latvia	0.44	0.40	0.58	0.66	0.44	1.50	=(100.0)	↓(50.0)
Lithuania	0.58	0.75	0.79	0.89	0.74	1.90	↑(21.6)	↓(20.3)

Luxembourg	1.58	1.60	1.62	1.27	1.24	2.30	↑(27.4)	↓(2.4)
Malta	.	0.49	0.53	0.83	0.61	0.67	↑(19.7)	↓(36.1)
Netherlands	1.81	1.81	1.64	1.94	2.03	2.50	↑(10.8)	↑(4.4)
Poland	0.64	0.55	0.60	0.88	0.97	1.70	↑(34.0)	↑(9.3)
Portugal	0.72	0.73	1.45	1.38	1.27	2.70	↑(43.3)	↓(8.7)
Romania	0.36	0.38	0.57	0.48	0.48	2.00	↑(25.0)	=(100.0)
Slovakia	0.64	0.50	0.46	0.80	0.79	1.20	↑(19.0)	↓(1.3)
Slovenia	1.36	1.37	1.63	2.57	2.00	3.00	↑(32.0)	↓(28.5)
Spain	0.89	1.04	1.32	1.29	1.19	3.00	↑(25.2)	↓(8.4)
Sweden	3.26	3.39	3.50	3.28	3.25	4.00	↓(0.3)	↓(0.9)
United Kingdom	1.63	1.55	1.63	1.60	1.69	.	↑(3.6)	↑(5.3)

*data from 2015

Source: Eurostat; www.stat.gov.pl/ (accessed on 27.02.2019).

On the other hand, a decrease in R&D expenditure in 2016 compared to 2000 was recorded in Denmark: 2.87 → 2.19, Finland: 2.75 → 3.25% of GDP, Sweden: 3.25 → 3.26 and Luxembourg: 1.24 → 1.58. An alarming phenomenon was also decreasing R&D expenditure compared for 2012 and 2016, which took place in as many as 15 EU member states: Czech Republic, Denmark, Finland, France, Hungary, Italy, Latvia, Lithuania, Luxembourg, Malta, Portugal, Slovakia, Slovenia, Spain and Sweden. The presented results may suggest problems maintaining a high economic position for the European Union which in the Europe 2020 Strategy assumes boosting innovativeness and improving competitiveness by increasing expenditure on research and development to 3% of GDP (Gasz, 2014).

Building innovation awareness among EU businesses, implementing a system of incentives oriented at increasing the share of businesses in financing expenditure on R&D and information technologies, at the same time reducing the previous expenditure on non-technological innovation (e.g. training, design, and marketing) are of significant importance. A significant element of a global economy, next to relatively low cost of employment, should be competitiveness based on products made using new technologies. The possibility to catch up with the competitors from other regions of the world (USA, Japan, India, and China) is determined by the necessity to involve more public and private funds (both from the EU budget and from respective member states) for scientific research financing, in particular applied and developmental research, and for developing new technologies and renewable energy sources.

The number of people with a tertiary degree, next to the number of early school leavers, is an important parameter for evaluating the accomplishment of a target referring to the process of building a knowledge-based economy creating an environment to boost employment and improve efficiency and social cohesion. According to statistics for 2004 the percentage of the EU's population with tertiary

degrees was 29.6%. In 2016, it increased to 39.1% of people aged 30–34, which should be given a positive evaluation from the point of view of the Strategy's assumption that the level of tertiary education in 2020 should reach 40% (Table 6, 7). Among the member states of the Community the highest percentage of tertiary or equivalent education in 2016 was recorded for Cyprus 53.4% (2020 target being 46%), Lithuania 57.7% (2020 target being 40%), and Sweden 51% (2020 target being 40%). The level of tertiary education exceeding 50% was also noted in Ireland and Luxembourg; however, their targets to be achieved in 2020 were 50% and 66% respectively. The lowest rate of tertiary education in the group aged 30–34 was observed in: Bulgaria (33%), Croatia (29.5%), Czech Republic (32.8%), Germany (33.2%), Hungary (33.0%), Italy (26.2%), Malta (29.8%), Portugal (34.6%), Romania (25.6%), and Slovakia (31.5%). Here, except Slovakia, Portugal and Germany, the above-mentioned member states declared a tertiary education rate for their citizens lower than 40%. In 2000–2016 the number of people with tertiary degrees grew in all member states of the Community, and the average level of this indicator was also regularly increasing throughout the EU. The percentage of the population aged 18–24 who completed secondary education and did not continue studying (early school leavers) in 2004 oscillated around 16.0%, whereas in 2016 it dropped to 10.7% (Table 6, 7). This may mean that more young people aged over 18 continued studying in tertiary schools. In each member state of the European Union (except Czech Republic) the percentage of people who did not continue studying decreased.

The nature of the flagship initiative “Youth on the move” – oriented at improving the quality and enhancing the attractiveness of European tertiary education in the global academic market – must be given a positive evaluation. It is assumed that undertaking activities oriented at supporting the mobility of students and young specialists can contribute to improving access to jobs in member states for candidates from all Europe and it can mitigate negative processes occurring in the EU employment market.

According to Eurostat, the risk of poverty and social exclusion comprises three types of risk: risk of relative poverty, serious risk of material deprivation and living in a jobless household. If a person falls into one of the three above-mentioned risk categories, it means that he or she is at risk of poverty and social exclusion. Analysis of data for 2004–2008 (Tables 8, 9) allows concluding that in most EU member states the number of individuals at risk of poverty and social exclusion decreased. However, this positive trend was reversed in 2012 and deferred negative consequences of global economic crisis are deemed the main reason behind it. In 2008, the lowest rate was recorded in Sweden (14.9%), Netherlands (14.9%), Czech Republic (15.3%), and Luxembourg (15.5%); in turn, the highest level was noted in Bulgaria (44.8%) and Romania (43.2%). Relatively high rates were also observed in Latvia (33.2%), Lithuania (32.5%) and Poland (30.5%). In 2012, the risk of poverty and social exclusion clearly grew stronger in most member states of the Community, and in particular in Bulgaria (49.3%). In 2016, the situation improved in some

countries only, since the risk of poverty and social exclusion in EU 28 decreased to 23.5% in 2016, in comparison to 24.7% in 2012.

Table 6. *Tertiary educational attainment of persons aged 30-34 and early leavers from education and training (in %)*

Country	Tertiary educational attainment of persons aged 30-34						Early leavers from education and training				
	2000	2004	2008	2012	2016	Goal 2020	2000	2004	2008	2012	2016
European Union (28)	.	26.9	31.1	36.0	39.1	40.0	.	16.0	14.7	12.7	10.7
Austria	.	20.9	21.9	26.1	40.1	38.0	10.2	9.8	10.2	7.8	6.9
Belgium	35.2	39.9	42.9	43.9	45.6	47.0	13.8	13.1	12.0	12.0	8.8
Bulgaria	19.5	25.2	27.1	26.9	33.8	36.0	.	21.4	14.8	12.5	13.8
Croatia	.	16.8	18.5	23.1	29.5	35.0	.	5.4	4.4	5.1	2.8
Cyprus	31.1	41.0	47.1	49.9	53.4	46.0	18.5	20.6	13.7	11.4	7.7
Czech Republic	13.7	12.7	15.4	25.6	32.8	32.0	.	6.3	5.6	5.5	6.6
Denmark	32.1	41.4	39.2	43.0	47.7	40.0	11.7	8.8	12.5	9.1	7.2
Estonia	30.4	28.3	34.4	39.5	45.4	40.0	15.1	13.9	14.0	10.3	10.9
Finland	40.3	43.4	45.7	45.8	46.1	42.0	9.0	10.0	9.8	8.9	7.9
France	27.4	35.6	41.0	43.3	43.6	50.0	13.3	12.3	11.8	11.8	8.8
Germany	25.7	26.8	27.7	31.8	33.2	42.0	14.6	12.1	11.8	10.5	10.2
Greece	25.4	25.1	25.7	31.2	42.7	32.0	18.2	14.5	14.4	11.3	6.2
Hungary	14.8	18.5	22.8	29.8	33.0	30.3	13.9	12.6	11.7	11.8	12.4
Ireland	27.5	38.6	46.3	51.1	52.9	60.0	.	13.1	11.4	9.7	6.3
Italy	11.6	15.6	19.2	21.9	26.2	26.0	25.1	23.1	19.6	17.3	13.8
Latvia	18.6	18.2	26.3	37.2	42.8	34.0	.	15.9	15.5	10.6	10.0
Lithuania	42.6	30.9	39.9	48.6	58.7	40.0	16.5	10.3	7.5	6.5	4.8
Luxembourg	21.2	31.4	39.8	49.6	54.6	66.0	16.8	12.7	13.4	8.1	5.5
Malta	7.4	17.6	21.0	24.9	29.8	33.0	54.2	42.1	27.2	21.1	19.6
Netherlands	26.5	33.6	40.2	42.2	45.7	40.0	15.4	14.1	11.4	8.9	8.0
Poland	12.5	20.4	29.7	39.1	44.6	45.0	14.6	12.1	11.8	10.5	10.2
Portugal	11.3	16.3	21.6	27.8	34.6	40.0	14.6	12.1	11.8	10.5	10.2
Romania	8.9	10.3	16.0	21.7	25.6	26.7	14.6	12.1	11.8	10.5	10.2
Slovakia	10.6	12.9	15.8	23.7	31.5	40.0	14.6	12.1	11.8	10.5	10.2
Slovenia	18.5	25.1	30.9	39.2	44.2	40.0	14.6	12.1	11.8	10.5	10.2
Spain	29.2	36.9	41.3	41.5	40.1	44.0	29.1	32.2	31.7	24.7	19.0
Sweden	31.8	33.9	42.0	47.9	51.0	40.0	7.3	9.2	7.9	7.5	7.4
United	29.0	33.6	39.5	46.9	48.1	.	18.2	12.1	16.9	13.4	11.2

Kingdom										
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Source: Eurostat; www.stat.gov.pl/ (accessed on 27.02.2019).

Table 7. Division and order of states in 2016 according to the values of the Europe 2020 Strategy indicators

As cen din g	Gross domestic expenditure on research and development activity (R&D) (in % of GDP)				
	<1.0	1.0-1.5	1.5-2.0	2.0-2.5	2.5-3.0
↑	Latvia Romania Cyprus Malta Lithuania Bulgaria Slovakia Croatia Poland Greece	Ireland Spain Hungary Luxembourg Portugal Estonia Italy	Czech Rep. United Kingdom Slovenia	Netherlands France Belgium	Finland Germany Austria Sweden
As cen din g	Tertiary educational attainment of persons aged 30-34 (in %)				
	<30	30-35	35-40	40-45	>45
↑	Romania Italy Croatia Malta	Slovakia Czech Rep. Hungary Germany Bulgaria Portugal	-	Spain Greece Latvia France Slovenia Poland	Estonia Belgium Netherlands Finland Denmark United Kingdom Sweden Ireland Luxembourg Lithuania

Source: own list

However, overall, the results of analysis indicate that nearly every fifth person in Europe can experience difficulty buying food. Growing prices of food decrease its availability, in particular, to families with the lowest income. This is confirmed by the study concerning the rate of material deprivation (unsatisfied needs) with regard to the households' possibility of having a meal of red meat, poultry or fish every two days (Tables 8, 9). In 2012 and 2016, respectively 9.9% and 7.5% of families in European households were affected by the deprivation of this need.

The most alarming data refers to Bulgaria, Romania and Greece, where in 2016 the rates of severe material deprivation were respectively 31.9%, 23.8% and 22.4%. Klikocka and Klikocki (2017) recounted that in Poland people living alone and

sharing households with more than 6 people could not afford a healthy and nutritious meal more often than other people. This may be due to the fact that the members of the households were probably elderly or people living off pensions. Households with three or four children did not manage to fulfil the fundamental needs at the satisfactory level as well. The best situation was recorded for households with four and three people; however, on average every tenth person among them could not afford a meal including meat every two days. The improved status of families with children could be a result of the fact that in many cases social welfare in Poland comprises financing or providing lunch at school. This is a very important measure but it does not completely solve the problem of malnutrition among children.

At present, state support in the form of the 500+ Programme provides a chance for Polish families, including children, to reduce the high rate of material deprivation, which means they could satisfy their food requirements maintaining an adequate living standard and human dignity. Among European households, the highest percentage of people at risk of poverty and social exclusion was noted in the group of lone parents, individuals living alone and large families (with three or more children). With regard to age structure, the group at the lowest risk of poverty was aged over 65, whereas the highest risk was recorded for people under 17. For the whole of the EU the risk of poverty referred to 27% of children, 24.3% adults (aged 18–64) and 20.5% of people aged above 64 (Gasz, 2014).

Here, the rate of material deprivation is discussed with reference to food only, neglecting other aspects (e.g. going to the cinema, museum or restaurant), and it should be hoped that adequate social policy and the care for growth of national economies will contribute to maintaining food security in EU-28, and thanks to a balanced supply and demand food consumption will remain at an adequate level (Klikocka and Klikocki 2017).

4. Discussion

In a broad comparative analysis Höpker (2012) concludes that the assumed targets and accomplished results of the Lisbon strategy were not favourable and that the Lisbon did not meet the political, social and economic expectations of the European Union. None of the quantifiable targets regarding economic performance, employment, research and innovation, social cohesion and sustainable growth has been accomplished (Table 10). The targeted rate of employment for people aged 20–64 has not been achieved. Expenditure on research and development only slightly increased compared to the initial value in 2000 and (in 2016) were still nearly 1% lower than planned. Also in the area of social cohesion, although no quantifiable target was set, no major progress could be observed. The rate of people at risk of poverty after social transfers has remained unchanged since 2005.

The Europe 2020 Strategy is a continuation of the Lisbon Strategy. It is a groundbreaking project of strategic importance to the social and economic condition

of the EU. However, also in this case it should be considered whether the adopted directions for change must be evaluated as reasonable and whether or not it possible to accomplish all the adopted targets simultaneously (Gasz, 2014; Kukuła, 2017; Ząbkowicz, 2017). The implementation of the *Innovation Union* priority requires that the share of the high technologies sector in the economies of EU member states be systematically increased. This is particularly significant in the context of a necessary reduction of the competitive gap between the economies of the EU and the USA, which is connected with the need for continuous rises in expenditure on research and development, on scientific research, and especially applied and developmental research, development of new technologies and renewable energy sources, levelling differences in expenditure on research and development between member states and increased involvement of the private sector in R&D financing. The increased involvement of public and private funds will determine the possibility to catch up with global competition from other regions of the world (USA, Japan, India, and China).

Improved innovation results in many member states of the European Union must be deemed a positive phenomenon; however, it should be noted that in some EU-28 member states R&D expenditure has been subject to long-term stagnation. On the other hand, clear improvement can be seen in the number of people with tertiary degrees, which allows a positive evaluation of the target related to the process of building a knowledge-based economy. And this creates a favourable environment for boosting the level of employment and enhancing efficiency and social cohesion. On the other hand, increasing difficulties in finding a job in the European employment market, especially by young people, are alarming. Therefore, the common road to accomplishing the targets of the Europe 2020 Strategy may turn out to go beyond the projected time horizon.

In addition, as anticipated by Grosse (2010), Smith (2005), Callaghan and Höpner (2005), the transfer of national legal regulation abroad is deemed one of the mechanisms ensuring advantage in international relations. This practice has been present in the common market for a long time and led to strong institutional competition between member states as well as attempts at incorporating solutions offered by national economic laws into EU law.

Table 8. *Share of people at risk-of-poverty or social exclusion – total and severely materially deprived people (in %)*

Country	Share of people at risk-of-poverty or social exclusion – total (in %)				Severely materially deprived people (in %)			
	2004	2008	2012	2016	2004	2008	2012	2016
European Union (28)	.	.	24.7	23.5	.	.	9.9	7.5
Austria	17.9	20.6	18.5	18.0	3.8	5.9	4.0	3.0
Belgium	21.6	20.8	21.6	20.7	4.7	5.6	6.3	5.5

Bulgaria	.	44.8	49.3	40.4	.	41.2	44.1	31.9
Croatia	.	.	32.6	27.9	.	.	15.9	12.5
Cyprus	.	23.3	27.1	27.7	.	9.1	15.0	13.6
Czech Republic	.	15.3	15.4	13.3	.	6.8	6.6	4.8
Denmark	16.5	16.3	17.5	16.7	2.9	2.0	2.7	2.6
Estonia	26.3	21.8	23.4	24.4	9.4	4.9	9.4	4.7
Finland	17.2	17.4	17.2	16.6	3.8	3.5	2.9	2.2
France	19.8	18.5	19.1	18.2	6.1	5.4	5.3	4.4
Germany	.	20.1	19.6	19.7	.	5.5	4.9	3.7
Greece	30.9	28.1	34.6	35.6	14.1	11.2	19.5	22.4
Hungary	.	28.2	33.5	26.3	.	17.9	26.3	16.2
Ireland	24.8	23.7	30.3	26.0*	4.8	5.5	9.8	7.5
Italy	26.2	25.5	29.9	29.9	7.0	7.5	14.5	12.1
Latvia	.	34.2	36.2	28.5	.	19.3	25.6	12.8
Lithuania	.	28.3	32.5	30.1	.	12.5	19.8	13.5
Luxembourg	16.1	15.5	18.4	19.7	0.8	0.7	1.3	1.6
Malta	.	20.1	23.1	20.1	.	4.3	9.2	4.4
Netherlands	.	14.9	15.0	16.7	.	1.5	2.3	2.6
Poland	.	30.5	26.7	21.9	.	17.7	13.5	6.7
Portugal	27.5	26.0	25.3	25.1	9.9	9.7	8.6	8.4
Romania	.	44.2	43.2	38.8	.	32.7	31.1	23.8
Slovakia	.	20.6	20.5	18.1	.	11.8	10.5	8.2
Slovenia	.	18.5	19.6	18.4	.	6.7	6.6	5.4
Spain	25.0	23.8	27.2	27.9	4.8	3.6	5.8	5.8
Sweden	16.9	14.9	15.6	18.3	3.0	1.4	1.3	0.8
United Kingdom	.	23.2	24.1	22.2	.	4.5	7.8	5.2

*data from 2015

Source: Eurostat; www.stat.gov.pl/ (accessed on 27.02.2019).

Table 9. Division and order of states in 2016 according to the values of the Europe 2020 Strategy indicators

As ce ndi ng	Share of people at risk-of-poverty or social exclusion (in %)				
	<20	20-25	25-30	30-35	>35

	Czech Rep. Finland Denmark Netherlands Austria Slovakia France Sweden Slovenia Luxembourg Germany	Malta Belgium Poland United Kingdom	Portugal Ireland Hungary Cyprus Spain Croatia Latvia Italy	Lithuania	Greece Romania Bulgaria
As ce ndi ng	Severely materially deprived people (in %)				
	<5	5-10	10-15	15-20	>20
	Sweden Luxembourg Finland Denmark Netherlands Austria Germany France Malta Estonia Czech Rep.	United Kingdom Slovenia Belgium Spain Poland Ireland Slovakia Portugal	Italy Croatia Latvia Lithuania Cyprus	Hungary	Greece Romania Bulgaria

Source: own list

Table 10. Comparison of goals and achievements in key areas

European Union (28)	2000 (initial value %)	2010 (%)	Target 2010 (%)	Gap (percentage points)	2016 (%)	Gap (percentage points)
Employment rate for women and men aged 20-64	66.5	68.6	75	-6.4	75.0	-4.0
R & D spending of GDP	1.77	1.93	3.00	-1.07	2.03	-0.97
Scholl drop-out rate	17.6	14.0	<10	-4.0	10.7	-0.7
Share of 30-34 years old having completed tertiary or equivalent education	22.4	33.8	40.0	-6.2	39.1	-0.9
People at risk of poverty after social transfers (% of total population)	25.8 (2005)	23.7	20 mio.	-3.7	23.5	-3.5

Severely materially deprived people	10.8 (2005)	8.3	-	-	7.5	-
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Source: Eurostat; www.stat.gov.pl/ (accessed on 27.02.2019). Own list

5. Conclusions

Improvements in innovation performance are visible in many EU countries, but the growth rate of R & D spending should be more significant. The improvement in the rate of people with higher education at the time allows for a positive assessment of the implementation of the objective related to the knowledge-based economy building process, creating conditions for increasing employment and increasing productivity and social cohesion.

However, an alarming phenomenon is deepening difficulties finding a job in the European employment market, in particular for young people, and a relatively high risk of poverty and social exclusion (on average 23.5% in EU-28).

References:

- Callaghan, H. and Höpner, M. 2005. European Integration and the Clash of Capitalisms: Political Cleavages over Takeover Liberalization. *Comparative European Politics*, 3(3), 307–332.
- European Commission: Commission staff working document, in support of the report from the Commission to the Spring European Council, 22-23 March 2005, on the Lisbon Strategy of economic, social and environmental renewal. Available at: http://ec.europa.eu/archives/growthandjobs/pdf/SEC2005_160_en.pdf.
- European Commission: Communication to the Spring European Council, Working together for growth and jobs – A new start for the Lisbon Strategy, COM (2005) 24. Available at: http://ec.europa.eu/archives/growthandjobs/pdf/COM2005_024_en.pdf.
- European Commission: DG ECFIN, Economic Crisis in Europe: Causes, Consequences and Responses, *European Economy*, 7/2009. Available at: http://ec.europa.eu/economy_finance/publications/publication15887_en.pdf.
- European Commission: COM (2010) 2020 final, Europe 2020 – A strategy for smart, sustainable and inclusive growth. Available at: <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF>.
- European Commission: Governance, Tools and Policy Cycle of Europe 2020. Available at: http://ec.europa.eu/europe2020/pdf/annex_swd_implementation_last_version_15-07-2010.pdf.
- Eurostat database. Available at: http://ec.europa.eu/invest-in-research/monitoring/statistical01_en.htm.
- Gasz, M. 2014. Europe 2020 Strategy – Assumptions and Prospects for Completion. *Nierówności Społeczne a Wzrost Gospodarczy*, 38(2), 85-97.
- Grosse, T. G. 2010. Lisbon Strategy Legacy – “Europe 2020” Outlook: Continuity and Change in EU Economic Policy. *Zarządzanie Publiczne*, 1(11), 5-23.
- Höpker, L. 2012. The Chances of Success of the Europe 2020 Strategy – An Analysis against the Background of the Lisbon Strategy. Study paper 4/13, Europa-Kolleg Hamburg. Institute for European Integration, pp. 57. Available at: <https://europa-kolleg-hamburg.de/>

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- Indicators monitoring the implementation of the Europe 2020 strategy. Available at: www.stat.gov.pl/
- Klikocka, H. and Klikocki, O. 2017. Analysis of food security in Poland in relation to sustainable development of agricultural production. *Intercathedra*, 33/4, 41-52.
- Kok, W. 2004. Facing the Challenge. The Lisbon Strategy For Growth And Employment, Report from the High Level Group chaired by Wim Kok, November 2004. Available at: http://europa.eu.int/comm/lisbon_strategy/index_en.html.
- Kukuła, A. J. 2017. Opportunities for implementing the Europe 2020 strategy (2010-2020). *Roczniki Nauk Społecznych*, 9(45), 3, 19-38.
- Smith, M. P. 2005. Germany's Quest for a New EU Industrial Policy: Why it is Failing. *German Politics*, 14(3), 315–331.
- Sulmicka, M. 2011. Europe 2020 Strategy - post-Lisbon European Union development policy, In: Stacewicz, J. (Ed.), *Economic policy in the light of crisis experiences. Works and materials of the Institute of Economic Development SGH*, no 85, Warszawa, 169-190.
- Ząbkowicz, J. 2016. Europe 2020 Strategy - Ambitious but feasible ?. *Studia Ekonomiczne. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach*, 269, 253-258.