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Master thesis

The results of current implementation of the policy

Europe 2020 on the basis of chosen indicators

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GROS, Daniel and ROTH, Felix. Europe 2020 Strategy: Can It Maintain the EU's Competitiveness in the World? Brussels: Centre for European Policy Studies, 2014. ISBN 978-9461381248.

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STATEMENT

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Table of contents

List of abbreviations.....	4
List of figures.....	5
List of tables.....	5
List of graphs	6
1 Introduction.....	8
2 Literature review	9
2.1 The policy Europe 2020	9
2.1.1 Background of its creation.....	10
2.1.2 Main priorities.....	12
2.1.3 Headline targets and indicators.....	14
2.1.4 Flagship Initiatives	18
2.1.5 Integrated Guidelines	27
2.1.6 A thematic approach and country reporting	28
2.1.7 The European Semester.....	28
2.1.8 Distribution of responsibilities.....	30
2.2 The results of implementation of the policy Europe 2020 in previous years ...	31
3 Methodology	36
3.1 Aim and objectives.....	36
3.2 Explanation of chosen indicators	36
3.3 Research type.....	37
3.4 Data collection and analysis	38
3.4.1 Rankings of Member States based on their fulfilment of each selected EU target in 2019	39
3.4.2 Rankings of Member States based on their comparison in each selected EU target using the Point Method.....	41

3.4.3	Rankings of Member States based on change in fulfilment of each selected EU target in 2019 compared to 2010	42
3.4.4	Ranking of Member States based on the average points within all three indicators	43
3.4.5	Ranking of Member States based on the number of EU headline targets fulfilled in 2019 compared to 2010.....	43
4	Results	44
4.1	Early leavers from education and training indicator	44
4.2	Tertiary education attainment indicator.....	48
4.3	Employment rate – age group 20-64 indicator	51
4.4	Additional rankings.....	55
4.5	Results of individual Member States	57
4.5.1	Austria	57
4.5.2	Belgium	58
4.5.3	Bulgaria	59
4.5.4	Croatia	60
4.5.5	Cyprus	61
4.5.6	Czech Republic	62
4.5.7	Denmark	63
4.5.8	Estonia.....	64
4.5.9	Finland.....	65
4.5.10	France	66
4.5.11	Germany	67
4.5.12	Greece.....	68
4.5.13	Hungary	69
4.5.14	Ireland.....	70
4.5.15	Italy	71

4.5.16	Latvia.....	72
4.5.17	Lithuania.....	73
4.5.18	Luxembourg.....	74
4.5.19	Malta.....	75
4.5.20	Netherlands.....	76
4.5.21	Poland.....	77
4.5.22	Portugal.....	78
4.5.23	Romania.....	79
4.5.24	Slovakia.....	80
4.5.25	Slovenia.....	81
4.5.26	Spain.....	82
4.5.27	Sweden.....	83
4.5.28	United Kingdom.....	84
5	Discussion.....	85
6	Conclusion.....	97
7	Summary.....	99
	References.....	100
	Appendix.....	111
	Appendix A: Visual presentation of the European Semester timeline.....	111
	Appendix B: Eurostat tables with Member States' values of individual indicators..	112
	Appendix C: Supplementary graphs to the tables with results.....	115

List of abbreviations

AGS	Annual Growth Survey
AMR	Alert Mechanism Report
CSR(s)	Country Specific Recommendation(s)
ELET	Early Leaving from Education and Training
ESF	European Social Fund
EU	European Union
ICT	Information and Communication Technology
IPR	Intellectual Property Rights
ISCED	International Standard Classification of Education
ITS	Institute of Tourism Studies
MCAST	The Malta College of Arts, Science & Technology
NEET	Not in Education, Employment or Training
NGO(s)	Non-profit Organisation(s)
NRP(s)	National Reform Programme(s)
OECD	Organisation for Economic Co-operation and Development
PIAAC	Programme for the International Assessment of Adult Competencies
SCP(s)	Stability and Convergence Programme(s)
SGP	Stability and Growth Pact
SME(s)	Small and Medium-sized Enterprise(s)

List of figures

Figure 1: Flagship Initiatives and the main priorities of the policy Europe 2020	18
Figure A1: The European Semester timeline.....	111

List of tables

Table 1: The main priorities and headline targets of the policy Europe 2020.....	15
Table 2: Headline targets, headline indicators and unit of their measurement.....	17
Table 3: Advantages and disadvantages of quantitative research.....	38
Table 4: Ranking of Member States based on their fulfilment of the target on early leavers from education and training in 2019	45
Table 5: Ranking of Member States based on their comparison in the target on early leavers from education and training in 2019 using the Point Method	46
Table 6: Ranking of Member States based on change in fulfilment of the target on early leavers from education and training in 2019 compared to 2010.....	47
Table 7: Ranking of Member States based on their fulfilment of the target on tertiary education attainment in 2019.....	48
Table 8: Ranking of Member States based on their comparison in the target on tertiary education attainment in 2019 using the Point Method	49
Table 9: Ranking of Member States based on change in fulfilment of the target on tertiary education attainment in 2019 compared to 2010	50
Table 10: Ranking of Member States based on their fulfilment in the target on employment rate – age group 20-64 in 2019	52
Table 11: Ranking of Member States based on their comparison in the target on employment rate – age group 20-64 in 2019 using the Point Method	53
Table 12: Ranking of Member States based on change in fulfilment of the target on employment rate – age group 20-64 in 2019 compared to 2010	54
Table 13: Ranking of Member States based on the average number of points within all three indicators.....	55

Table 14: Ranking of Member States based on the number of fulfilled targets in 2019 compared to 2010.....	56
Table B1: Early leavers from education and training, total.....	112
Table B2: Tertiary education attainment, total	113
Table B3: Employment rate – age group 20-64, total	114

List of graphs

Graph 1: Change since 2010 in relation to EU targets in Austria.....	57
Graph 2: Change since 2010 in relation to EU targets in Belgium.....	58
Graph 3: Change since 2010 in relation to EU targets in Bulgaria.....	59
Graph 4: Change since 2010 in relation to EU targets in Croatia.....	60
Graph 5: Change since 2010 in relation to EU targets in Cyprus.....	61
Graph 6: Change since 2010 in relation to EU targets in the Czech Republic	62
Graph 7: Change since 2010 in relation to EU targets in Denmark.....	63
Graph 8: Change since 2010 in relation to EU targets in Estonia.....	64
Graph 9: Change since 2010 in relation to EU targets in Finland	65
Graph 10: Change since 2010 in relation to EU targets in France.....	66
Graph 11: Change since 2010 in relation to EU targets in Germany	67
Graph 12: Change since 2010 in relation to EU targets in Greece	68
Graph 13: Change since 2010 in relation to EU targets in Hungary.....	69
Graph 14: Change since 2010 in relation to EU targets in Ireland	70
Graph 15: Change since 2010 in relation to EU targets in Italy	71
Graph 16: Change since 2010 in relation to EU targets in Latvia	72
Graph 17: Change since 2010 in relation to EU targets in Lithuania	73
Graph 18: Change since 2010 in relation to EU targets in Luxembourg	74
Graph 19: Change since 2010 in relation to EU targets in Malta	75
Graph 20: Change since 2010 in relation to EU targets in the Netherlands.....	76

Graph 21: Change since 2010 in relation to EU targets in Poland	77
Graph 22: Change since 2010 in relation to EU targets in Portugal	78
Graph 23: Change since 2010 in relation to EU targets in Romania	79
Graph 24: Change since 2010 in relation to EU targets in Slovakia.....	80
Graph 25: Change since 2010 in relation to EU targets in Slovenia.....	81
Graph 26: Change since 2010 in relation to EU targets in Spain	82
Graph 27: Change since 2010 in relation to EU targets in Sweden	83
Graph 28: Change since 2010 in relation to EU targets in the United Kingdom.....	84
Graph C1: Fulfilment of the target on early education and training by Member States in 2019.....	115
Graph C2: Member States' comparison in the target on early leavers from education and training in 2019 using the Point Method	116
Graph C3: Change in Member States' fulfilment of the target on early leavers from education and training in 2019 compared to 2010.....	117
Graph C4: Fulfilment of the target on tertiary education attainment by Member States in 2019	118
Graph C5: Member States' comparison in the target on tertiary education attainment in 2019 using the Point Method	119
Graph C6: Change in Member States' fulfilment of the target on tertiary education attainment in 2019 compared to 2010	119
Graph C7: Fulfilment of the target on employment rate – age group 20-64 by Member States in 2019.....	120
Graph C8: Member States' comparison in the target on employment rate – age group 20-64 in 2019 using the Point Method	121
Graph C9: Change in Member States' fulfilment of the target on employment rate – age group 20-64 in 2019 compared to 2010	121

1 Introduction

I chose the policy Europe 2020 as the topic of my master thesis because I was interested in how individual European Union Member States are doing in its implementation. During my master degree, I had the opportunity to stay in four Member States, namely France, Germany, the Czech Republic and Belgium, which made me more aware of the overall situation and life of people in other Member States.

The European Union consists of twenty seven Member States but not in all of them the situation related to education and employment is equal. Some Member States still face the difficulties such as poor quality and accessibility of education, shortage of qualified teachers or insufficient equipment of schools. This is then reflected in the employment rate of Member States. With the help of the ten-year policy Europe 2020, designed to improve, inter alia, the overall level of both education and employment, individual Member States should achieve better results in these two fields, while contributing to improving the level of the European Union as a whole.

The purpose of the present master thesis is to carry out quantitative research to find out the results of current implementation of the policy Europe 2020 on the basis of chosen indicators, which are early leavers from education and training, tertiary education attainment and employment rate – age group 20-64. For that reason, the master thesis aims to take a close look especially at areas of education and employment in the European Union. Concerning the research methodology, I use tables and graphs to demonstrate the results of individual Member States.

This master thesis fills gaps in this area of research as it provides completely new findings on the implementation of the policy Europe 2020 by Member States in 2019. The available literature only presents results from previous years.

The master thesis is divided into several parts. The first part deals with the literature review where the whole policy Europe 2020 is described and the relevant literature to my research is listed. The second part focuses on the detailed explanation of the research methodology. The third part presents the results obtained by the research in the form of tables and graphs along with their interpretation. The fourth part includes a discussion about research contribution, major findings and their justification, research limitations, areas for future research and future forecast.

2 Literature review

This section of the master thesis deals with theory, therefore the policy Europe 2020 as well as the results of its implementation are presented here. In the first part, several definitions of the policy, background of its creation, main priorities, headline targets and indicators, Flagship Initiatives, Integrated Guidelines, the thematic approach and country reporting, the European Semester and distribution of responsibilities are described in detail. In the second part, the overview of results of its implementation based on available sources is mentioned.

2.1 The policy Europe 2020

Several definitions of this policy can be found in the relevant literature. The European Commission (2010a, p. 3) defines it as *“a strategy to help us come out stronger from the crisis and turn the EU into a smart, sustainable and inclusive economy delivering high levels of employment, productivity and social cohesion”*. According to Directorate-General for Employment, Social Affairs and Inclusion (2019, p. 3), *“the Europe 2020 strategy has been the EU's agenda for growth and jobs over the current decade which emphasises smart, sustainable and inclusive growth in order to improve Europe's competitiveness and productivity and underpin a sustainable social targets, market economy”*. Kedaitis & Kedaitiene (2014, p. 700) note that *“the Europe 2020 is the umbrella strategy of the EU aiming at enhancing of the economic growth of EU over year 2010-2020”*. Samardžija (2010, p. XIII) states that *“it focuses particularly on finding an adequate response to the ongoing challenges by assigning greater value to themes such as knowledge and innovation, low carbon economies, higher growth, employment and social cohesion”*.

The Europe 2020 strategy essentially focuses on two of the five overall objectives – the internal market and the economic and monetary union and it targets smart, sustainable and inclusive growth - three mutually reinforcing priorities with the ultimate objective of delivering high levels of employment, productivity and social cohesion (Deloitte, 2016, p. 6).

The Europe 2020 – A strategy for smart, sustainable and inclusive growth was adopted in 2010 as the European Union's landmark economic and social policy strategy and it formulated EU-wide targets for employment, research and development, climate/energy, education and poverty reduction/social inclusion (Darvas, 2017, p. 2).

The Europe 2020 is another long-term programme for socio-economic growth and its main objective is to strengthen and develop the economies of all member states, which will be based on knowledge recognised as a major factor determining the modern, international economic competitiveness (Stec & Grzebyk, 2018, p. 119).

According to the Committee of the Regions (2013, p. 11), “*Europe 2020 is the European Union’s main strategy for putting Europe’s economy back on the path to growth*”.

The Europe 2020 strategy sets out the vision of a social market economy for Europe in the 21st century and it aims at transforming the EU into a smart, sustainable and inclusive economy with high levels of employment, productivity and social cohesion and at reinforcing the EU as an actor in global governance (Bongardt & Torres, 2010, p. 3).

Pal’ová & Václavíková (2017, p. 2 376) conclude that the main idea of the Europe 2020 is that “*the set of various tools and mechanisms can be employed to enable the weaker members to achieve the stated objectives of the development of the EU as a whole*”.

Bogliacino (2014, p. 294) suggests “*Europe 2020 is a credible strategy of industrial policy for the future of Europe and has the merits of presenting clear actions, clear targets and a detailed measurement strategy to monitor implementation*”.

The Europe 2020 strategy was adopted by the European Council on 17 June 2010 as the successor to the Lisbon strategy¹ and it emphasised smart, sustainable and inclusive growth as a way to strengthen the EU economy and prepare its structure for the challenges of the next decade (Eurostat, 2019, p. 14).

2.1.1 Background of its creation

During the creation of this policy, Europe was facing financial crisis which annihilated years of economic and social progress and brought to light structural weaknesses in Europe's economy (European Commission, 2010a, p. 3). The economic crisis which took place in 2008 bounced the EU into redefining its economic and educational policies. Due to the serious problems in the financial sector at that time, credit was limited and this caused a decline in consumer spending. The latter negatively influenced business productivity while contributed to rising unemployment rates in Europe. (Arriazu & Solari,

¹ “*The Lisbon Strategy, also known as the Lisbon Agenda or the Lisbon Process, was a comprehensive action and development programme for the EU in 2000-2010*” (Butković & Dujmović, 2010, p. 295).

2015, p. 134) Barroso (2009, p. 15) states “*immediate action will be required to fight unemployment today, but also to look ahead to those facing long-term structural barriers to employment, such as the young and low skilled*”. When the crisis transformed into a sovereign debt crisis that affected the eurozone in particular, it also pointed to the need for increased European economic cooperation so as to deal with the causes of the crisis, such as differences in competitiveness between Member States and budgetary disequilibria, productivity and possible growth of national economies, public and private debt. (Bongardt & Torres, 2010, p. 139)

External pressures such as globalisation, pressure on resources, the ageing of Europe’s population (Butković & Samardžija, 2010, p. 15), the increasing competition from the fast growing markets in Asia (especially India and China) and other countries (e.g. Brazil) as well as the large-scale technological progress (notably in the field of ICT) contributed to the transformation of the EU too (Stec & Grzebyk, 2018, p. 123).

As a result of rapid technological changes, principally in the areas of ICT, transport, logistics and services, many of economic activities took place, because geographical distance was no longer an obstacle for them. This logically prompted the development of internationalisation and economic integration on the global scale. The EU faced two types of globalisation challenges: how to cope with loss of jobs in traditional industries, caused primarily by the relocation of certain activities outside the EU, and how to avert slow development of innovation in high technology sectors, where the EU lagged behind the US and Japan. (Mrak, 2010, pp. 72-73)

Another challenge for the EU was the attitude to the environment associated mainly with reduction of greenhouse gas emissions, which could result in significant long-term negative consequences of atmospheric warming in the following decades. Challenges in the area of climate change were related to problems with procuring food production and energy. The EU’s difficult position, concerning energy caused by its high dependency on energy import, could only be solved in the long term and only with the use of technologies which were still in the research phase at the time. (Mrak, 2010, p. 73)

The EU’s ageing population strongly and negatively impacted public finances in the form of increasing outlay for health care and pensions. The problem was even more complicated because of the decreasing working age population. Europe’s competitive position associated with an increased shortage of young and highly educated employees

was also endangered. In addition, there was a question regarding immigration which directly or indirectly gave rise to the ageing of the European population, or immigration which was the consequence of the search for opportunities linked to a better life. (Mrak, 2010, pp. 73-74)

All the above mentioned led to the creation of the policy Europe 2020 in order to reinforce policy approaches that will support economic recovery, assure the long-term sustainability of public finances, strengthen coordination of economic policy as well as intensify efforts in terms of boosting competitiveness, based on advanced competitive sectors, education and innovation. (Butković & Samardžija, 2010, p.16)

2.1.2 Main priorities

The EU has dealt with precarious and stormy times since the beginning of the economic and financial crisis and this finally led to the creation of short- and long-term priorities that guide the strategic as well as tactical objectives and actions of the EU Institutions. These priorities serve as the structure, from the top level of the policy Europe 2020 pillars down to the strategic activities carried out by the EU agencies. (Deloitte, 2016, p. 6)

The policy Europe 2020 targets smart, sustainable and inclusive growth which are three mutually reinforcing priorities with the eventual objective aimed at delivering high levels of employment, productivity and social cohesion. (Deloitte, 2016, p. 6)

The three main priorities are the following:

- Smart growth: developing an economy based on knowledge and innovation.
- Sustainable growth: promoting a more resource efficient, greener and more competitive economy.
- Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion. (European Commission, 2010a, p. 3)

Smart growth focuses on reaching an ambitious economic outcome based on strengthening knowledge and innovation as drivers of the EU's future growth. To meet the latter, it is demanded the improvement of the quality of education, support of research performance, promotion of innovation and knowledge transfer throughout the EU, entirely use of information and communication technologies and securing the possibility of transforming innovative ideas into new products and services that create growth, quality jobs and help address European and global societal challenges. But success of this

type of growth also requires the involvement of entrepreneurship, finance, and a focus on user needs and market opportunities. (European Commission, 2010a, pp. 9-10)

European Commission (2010a, p. 10) argues that “*action under this priority will unleash Europe's innovative capabilities, improving educational outcomes and the quality and outputs of education institutions, and exploiting the economic and societal benefits of a digital society*”.

Sustainable growth addresses the challenges relate to building a resource efficient, sustainable and competitive economy while taking advantage of Europe's leadership on the way to develop new processes and technologies. These consist of green technologies, backing advanced knowledge of ICT, exploiting EU-scale networks, and reinforcing the competitive advantages of the EU's businesses, specially in manufacturing and within SMEs, along with assisting consumers in valuation of resource efficiency. (Deloitte, 2016, p. 7) With such a concept, the EU can prosper in a low-carbon, resource constrained world and at the same time prevent environmental degradation, biodiversity loss and unsustainable use of resources. It further stimulates economic, social and territorial cohesion. (European Commission, 2010a, p. 12)

European Commission (2010a, p. 13) claims that “*action under this priority will require implementing of emission-reduction commitments in a way which maximises the benefits and minimises the costs, including through the spread of innovative technological solutions*”.

Inclusive growth is about providing equal rights together with opportunities for all citizens in the labour market (Deloitte, 2016, p. 7) through high levels of employment, investing in skills, fighting poverty and modernising labour markets, training and social protection systems. This will help citizens to prepare for and handle change, and to form a cohesive society. In order to strengthen territorial cohesion, it is important to extend the benefits of economic growth to all parts of the EU, including the outermost regions. In the context of increased competition and an ageing population, Europe is in need of making full use of its labour potential. Within this type of growth, the promotion of gender equality will be also needed in order for increasing labour force participation which will lead to growth and social cohesion. (European Commission, 2010a, p. 16)

European Commission (2010a, p. 16) states that “*action under this priority will require modernising, strengthening our employment education and training policies and social*

protection systems by increasing labour participation and reducing structural unemployment, as well as raising corporate social responsibility among the business community”.

2.1.3 Headline targets and indicators

Headline targets are connected with the main priorities of the policy Europe 2020, which are smart, sustainable and inclusive growth, and represent the position that the EU wants to achieve by 2020. It is essential that these targets are measurable, able of reflecting the different situation of each Member State and be later compared on the basis of sufficiently reliable data. (European Commission, 2010a, p. 8)

Taking into account all the previously mentioned, these five targets have been chosen:

- 75 % of the population aged 20-64 should be employed.
- 3 % of the EU's GDP should be invested in R&D.
- The “20/20/20” climate/energy targets should be met (including an increase to 30 % of emissions reduction if the conditions are right).
- The share of early school leavers should be under 10 % and at least 40 % of the younger generation should have a tertiary degree.
- 20 million less people should be at risk of poverty. (European Commission, 2010a, p. 3)

Unlike the European Commission, the Eurostat (2019, p. 15) lists eight headline targets which can be seen in the Table 1, along with the main priorities.

Table 1: The main priorities and headline targets of the policy Europe 2020

	Targets
Smart growth	<ul style="list-style-type: none"> • Increasing combined public and private investment in R&D to 3 % of GDP • Reducing school drop-out rates to less than 10 % • Increasing the share of the population aged 30–34 having completed tertiary education to at least 40 %
Sustainable growth	<ul style="list-style-type: none"> • Reducing greenhouse gas emissions by at least 20 % compared to 1990 levels • Increasing the share of renewable energy in final energy consumption to 20 % • Moving towards a 20% increase in energy efficiency
Inclusive growth	<ul style="list-style-type: none"> • Increasing the employment rate of the population aged 20–64 to at least 75 % • Lifting at least 20 million people out of the risk of poverty and social exclusion

Source: Eurostat (2019)

These targets belong to the five areas: employment, research and development, climate change and energy, education, poverty and social exclusion (Directorate-General for Employment, Social Affairs and Inclusion, 2019, p. 13).

Concerning the area of employment, the European Commission (2010a, p. 8) suggests that *“the employment rate of the population aged 20-64 should increase from the current 69 % to at least 75 %, including through the greater involvement of women, older workers and the better integration of migrants in the work force”*.

There is an evident need to improve the conditions for private R&D in the EU. *“It is also clear that by looking at R&D and innovation together we would get a broader range of expenditure which would be more relevant for business operations and for productivity drivers”*. (European Commission, 2010a, p. 9)

Regarding climate change and energy, the aim of the European Commission (2010a, p. 9) is to *“reduce greenhouse gas emissions by at least 20 % compared to 1990 levels or by 30 %, if the conditions² are right; increase the share of renewable energy sources in final energy consumption to 20 %; and a 20 % increase in energy efficiency”*.

A target on educational attainment which tackles the problem of early school leavers by reducing the drop out rate to 10 % from the current 15 %, whilst increasing the

² Other advanced countries act towards comparable emission cuts and developing countries assist adequately on the basis of their responsibilities and respective capabilities (European Commission, 2010a, p. 9).

share of the population aged 30-34 having completed tertiary education from 31 % to at least 40 % in 2020 should be met. (European Commission, 2010a, p. 9)

In the field of poverty and social exclusion, the European Commission (2010a, p. 9) notes that “*the number of Europeans living below the national poverty lines should be reduced by 25 %, lifting over 20 million people out of poverty*”.

These five targets are interlinked, which means that progress attained in one may subsequently have direct positive effect on the others (Káposzta & Nagy, 2015, p. 85). For instance, higher levels in education support employability and progress in increasing the employment rate contributes to reduce poverty. A greater capacity with regard to research and development as well as innovation across all sectors of the economy, combined with enhanced resource efficiency, will improve competitiveness and stimulate job creation. Investments in cleaner, low carbon technologies will help our environment, contribute to fighting climate change and create new business and employment opportunities. (European Commission, 2010a, p. 9)

Headline targets do not embody the “one size fits all” approach as in the case of the Lisbon Strategy. Proof of this is that these targets have been translated into national targets and trajectories, so Member States has tailored the policy Europe 2020 to their particular situation. Therefore, neither the concrete targets nor the way to accomplish them are identical in all the Member States. (Káposzta & Nagy, 2015, p. 85)

To measure these quantitative targets, nine headline indicators have been introduced. Their overview as well as headline targets and unit of their measurement are presented in the table below.

Table 2: Headline targets, headline indicators and unit of their measurement

Headline target	Headline indicator	Unit of measurement
75 % of the population aged 20-64 should be employed.	Employment rate – age group 20-64, total <ul style="list-style-type: none"> ▪ Employment rate – age group 20-64, females ▪ Employment rate – age group 20-64, males 	% of population aged 20-64
3 % of the EU's GDP should be invested in R&D.	Gross domestic expenditure on R&D	% of GDP
Greenhouse gas emissions should be reduced by 20 % compared to 1990.	Greenhouse gas emission <ul style="list-style-type: none"> ▪ Greenhouse gas emissions in ESD sectors 	Index 1990 = 100 <ul style="list-style-type: none"> ▪ Million tonnes of CO₂equivalent
The share of renewable energy sources in final energy consumption should be increased to 20 %.	Share of renewable energy in gross final energy consumption	%
Energy efficiency should improve by 20 %.	Primary energy consumption	Million tonnes of oil equivalent (TOE)
	Final energy consumption	Million tonnes of oil equivalent (TOE)
The share of early school leavers should be under 10 % and at least 40 % of the younger generation should have a tertiary degree.	Early leavers from education and training, total <ul style="list-style-type: none"> ▪ Early leavers from education and training, females ▪ Early leavers from education and training, males Tertiary education attainment, total <ul style="list-style-type: none"> ▪ Tertiary education attainment, females ▪ Tertiary education attainment, males 	% of population aged 18-24 % of population aged 30-34
20 million less people should be at risk of poverty.	People at risk of poverty or social exclusion <ul style="list-style-type: none"> ▪ People living in households with very low work intensity ▪ People at risk of poverty after social transfers ▪ People severely materially deprived 	Cumulative difference from 2008 in thousand <ul style="list-style-type: none"> ▪ Thousand ▪ Thousand ▪ Thousand

Source: Author based on Eurostat (2020a)

2.1.4 Flagship Initiatives

Within the policy Europe 2020, seven Flagship Initiatives has been set in order to support growth and jobs at the EU and national level. These seven Flagship Initiatives, which will be further described, focus especially on innovation, education, the digital society, climate and energy, mobility, competitiveness, jobs and skills, the fight against poverty (Pochet, 2010, p. 141). They can be found, together with the main priorities, in the following figure.

Figure 1: Flagship Initiatives and the main priorities of the policy Europe 2020



Source: Committee of the Regions (2013)

2.1.4.1 Digital Agenda for Europe

The aim of the Flagship Initiative “A Digital Agenda for Europe” is to find a way to increase the social and economic potential of ICT, most particularly the internet, which is becoming an essential tool for doing business, working, playing, communicating and expressing ourselves freely. This Flagship Initiative should also contribute to innovation, economic growth and improvements in daily life of citizens as well as businesses. (Committee of the Regions, 2013, p. 28)

The European Commission (2010b, p. 5) has determined seven obstacles (fragmented digital markets, lack of interoperability, rising cybercrime and risk of low trust in networks, lack of investment in networks, insufficient research and innovation efforts, lack of digital literacy and skills, missed opportunities in addressing societal challenges) to be addressed in the Digital Agenda:

Concerning fragmented digital markets, citizens of the EU cannot take advantage of the benefits of a digital single market, because there are still many national online markets in

Europe. It is therefore necessary to remove regulatory barriers, facilitate electronic payments and invoicing, address dispute and customer trust issues, and enable the cross-border flow of commercial and cultural content, and services. (European Commission, 2010b, p. 5)

In the area of interoperability, the EU faces many challenges such as standard-setting, public procurement and coordination between public authorities. Thus, digital services and devices used by citizens of the EU do not work together as well as they should. (European Commission, 2010b, p. 5)

Regarding rising cybercrime and risk of low trust in networks, the EU should build up responsive mechanisms in order to prevent the rise of new forms of crime, known as “cybercrime”, ranging from child abuse to identity theft and cyber-attacks. Another problem is the multiplication of databases and new technologies which are able to remotely manipulate with personal data and privacy of citizens of the EU. IT systems and networks must guaranteed safety on the internet. (European Commission, 2010b, pp. 5-6)

The question of the lack of investment in the new, very fast open and competitive internet networks, that will be at the heart of a future economy, could be figured out by providing the right incentives to encourage private investment together with carefully targeted public investments, without re-monopolising the EU networks. (European Commission, 2010b, p. 6)

As to the insufficient research and innovation efforts, the EU invests little, makes poor use of the creativity of SMEs and is not able to translate the intellectual advantage of research into the competitive advantage of market innovations. For these reasons, researchers need to be supported to help the EU create an innovative ecosystem in which European ICT companies of all sizes can develop world-class products that will generate demand. The EU should, therefore, use more private investment, better regulate and merge resources, make the access of digital SMEs to the EU research funds, joint research infrastructures and innovation clusters easier, and develop standards as well as open platforms for new applications and services. (European Commission, 2010b, p. 6)

The EU suffers from a lack of digital literacy and skills. Due to these problems, many of its citizens cannot enjoy digital benefits and economy, which slows down the productivity

growth in IT field. The solution is a coordinated reaction, with Member States and other stakeholders at its centre. (European Commission, 2010b, p. 6)

In relation to missed opportunities in addressing societal challenges, by making full use of the ICT potential, the EU will be also able to devote effort to societal challenges such as climate change, ageing of population, rising health costs, integrating people with disabilities, digitising Europe's cultural heritage and making it accessible to present as well as future generations. (European Commission, 2010b, p. 6)

2.1.4.2 Innovation Union

The Flagship Initiative named Innovation Union addresses the transformation of innovative ideas into products and services which create growth and jobs, and the improvement of the framework conditions and access to finance for research and innovation. In practice, this means focusing R&D and innovation policy on society's challenges such as climate change, energy and resource efficiency, health and demographic change. (Committee of the Regions, 2013, p. 31)

According to the European Commission (2010c, pp. 2-3), these steps are essential to attain the Innovation Union:

The EU as well as Member States have to continue to invest in education, R&D, innovation and ICT. These investments should, as far as possible, not only be safeguard from budget cuts, but should be intensified. This approach along with reforms will result in getting more value for money and dealing with fragmentation. It is also important to link up EU and national research & innovation systems with each other and to increase their functioning. (European Commission, 2010c, pp. 2-3)

In order to have more universities in world rankings, raise skill standards and attract top talent from abroad, education systems at all levels need to be modernised in the EU. Also, the work and collaboration of researchers and innovators crosswise the EU should be as easy as it is within national borders. By the end of 2014, the European Research Area which will ensure a free movement of knowledge must be developed. (European Commission, 2010c, p. 3)

The EU programmes should be more accessible and the role of the European Research Council needs to be reinforced. The European Regional Development Fund should help with exploitation of research and innovation capacities throughout Europe, using smart regional specialisation strategies. (European Commission, 2010c, p. 3)

So as to achieve a greater share of innovation coming from research, it is necessary to intensify mutual cooperation between the world of science and the world of business, remove obstacles and implement incentives. (European Commission, 2010c, p. 3)

Another important step is the removal of barriers for entrepreneurs, such as better access to finance, notably for SMEs, affordable IPR or smarter and more ambitious regulation and targets, that enables them to come up with new ideas to market. The agreement on the EU patent should follow and be carried out to the end of 2011. (European Commission, 2010c, p. 3)

European Innovation Partnerships should be introduced to enable our citizens to live longer independently in good health by increasing the average number of healthy life years by two, and, in achieving this target, to improve the sustainability and efficiency of our social and healthcare systems, and to create an EU and global market for innovative products and services with new opportunities for EU business (European Commission, 2010c, p. 40).

The EU's potential lies in design and creativity from which it can benefit, but only if it focuses on a better understanding of public sector innovation, identifying and giving visibility to successful initiatives, and benchmarking progress. Improving collaboration with international partners by making R&D programmes available, while ensuring parallel conditions abroad is an important part of the Innovation Union as well. (European Commission, 2010c, p. 3)

2.1.4.3 Youth on the Move

Youth on the Move is the EU's Flagship Initiative with the aim to ensure better performance and international attractiveness of higher education institutions in Europe, enhance the overall quality of all levels of education and training in the EU, and improve the employment situation of young people (European Commission, 2010a, p. 11).

As the European Commission (2010d, pp. 3-4) states, this Flagship Initiative will focus on the following four main lines of action:

It is essential to put emphasis on the lifelong learning system, the development of key competences and quality learning outcomes in accordance with labour market needs, thus the EU should offer more learning opportunities for young people, such as acquisition of skills through non-formal educational activities. One of the important tools by which the Youth on the Move will support these actions is the Council and its recommendations on

addressing the solving of high level of early school leaving in Member States, through the European Year of Volunteering 2011 and the validation of non-formal and informal learning. Another important tool is the Commission who contributes to the promotion of apprenticeship vocational training and high quality traineeships while building bridges to the labour market. (European Commission, 2010d, p. 3)

To keep pace with competition in the knowledge economy and to foster innovation, the EU must increase the proportion of young people attending higher education institutions. Moreover, European higher education needs to become more appealing and open to the whole world and respond to the globalisation. The steps the Youth on the Move will undergo are the introduction of a new agenda focused on the reform and modernisation of higher education, and a new EU international strategy which will promote the attractiveness of European higher education and back academic collaboration as well as exchanges with partners from the rest of the world. (European Commission, 2010d, p. 3)

The international dimension will be strengthened by reviewing, expanding and linking the EU's support for learning mobility through programmes and initiatives with national and regional resources. By 2020, the Youth on the Move will support all young people in the EU to have the opportunity to stay abroad for some time during their education. There will also be a website with information on mobility and learning occasions within the EU, and the new EU initiative named "Your first EURES Job" which will enable young people to work abroad and also invite employers to create jobs for young mobile workers. (European Commission, 2010d, pp. 3-4)

The employment situation of young people in the EU should be ameliorated. With the help of the Youth on the Move, the unemployment of this particular group could be lowered by making the transition from school to work easier and reducing segmentation in the labour market. (European Commission, 2010d, p. 4)

2.1.4.4 A Resource-efficient Europe

This Flagship Initiative focuses on sustainable growth as a consequence of shift towards a resource-efficient and low-carbon economy. It presents a vision for the structural and technological change which needs to be reached until 2050, including milestones to be realised by 2020. (Committee of the Regions, 2013, p. 36)

Using a policy mix that optimises synergies and addresses compromises between different areas and policies could contribute to the formulation of complex and interlinked

approach to build a resource-efficient Europe. The EU needs to think about how it uses its resources, including the value chain, and the trade-offs between different priorities to come up with a long-term plan. (European Commission, 2010e, p. 4)

A Resource-efficient Europe also provides a long-term framework for action in many policy fields such as climate change, energy, transport, industry, raw materials, agriculture, fisheries, biodiversity and regional development. These different policy fields must be well harmonised and will be further presented in the form of a series of coordinated roadmaps. (European Commission, 2010e, p. 5)

Problem related to inefficient use of resources due to the missing information about the true costs to society of consuming them lead to the situation where businesses and individuals cannot accommodate their behaviour accordingly. Therefore, policy measures must lead to improved resource efficiency and overall economic competitiveness, in particular by placing greater emphasis on “correct pricing” and transparency for consumers. Prices will then reflect the full costs of resource use to society (e.g. in terms of environment and health). (European Commission, 2010e, p. 7)

The analysis made within this Flagship Initiative must be built on common assumptions, parameters and baselines, as well as on shared medium- and long-term ideas which will enable further analyses to provide a consistent basis for policy decisions in order to attain reduction of greenhouse gas emission and other relevant goals in a cost-efficient way across the relevant sectors. The first step will be the presentation of joint modelling scenarios up to 2050 on climate, energy and transport policies prepared by the Commission in early 2011. The Commission will then initiate further analytical work with the aim to estimate economy-wide impacts, and to improve its own ability to model in other fields relevant to resource efficiency, such as agriculture, industry and environment. (European Commission, 2010e, pp. 7-8)

To tackle the global dimension of key environmental issues such as climate change, biodiversity, land use, deforestation, external impacts of consumption and production patterns, competitiveness, it is necessary the EU to address these affairs at international level and to cooperate closely with key partners as well as with candidate countries and those in neighbourhood. So to guarantee the international competitiveness of industry, the EU should devote its effort to ensure a level playing field for industry, to improve the conditions for sustainable supply of raw materials, and to promote the liberalisation of

trade dealing with environmental goods and services. Exploiting green technologies is important because they benefit the environment, the efficiency of production processes, thus support the most efficient use of scarce natural resources worldwide. (European Commission, 2010e, pp. 8-9)

2.1.4.5 An Industrial Policy for the Globalisation Era

An Industrial Policy for the Globalisation Era is an approach that intends to hold a strong, diversified and competitive industrial base in the EU, provide jobs with good remuneration and turn the EU's industry into less carbon-intensive which will result in the augmentation of growth and jobs (Committee of the Regions, 2013, p. 41)

In 2008, the economic crisis hit industry, in particular SMEs, and all sectors are now experiencing the challenges of globalisation and adapting their production techniques as well as products to a low-carbon economy. The effect of these challenges will vary from sector to sector, so the Commission will cooperate closely with stakeholders in different sectors (business, trade unions, academics, NGOs, consumer organisations) and support entrepreneurship, guide and help industry to adapt to these challenges, promote the competitiveness of the EU's primary, manufacturing and service industries and help them seize the opportunities of globalisation and of the green economy. (European Commission, 2010a, p. 15)

Here are some commitments that the European Commission (2010a, p. 15) mentions:

The EU will reexamine regulations to support the transition of service and manufacturing sectors towards achieving greater resource efficiency, along with more effective recycling; to improve the way the standard setting of the EU works to use European and international norms for the long-term competitiveness of the industry in the EU. This will consist of promoting the commercialisation and deployment of key enabling technologies. (European Commission, 2010a, p. 15)

The EU will reduce the transaction costs of doing business in Europe, promote clusters and improve access to finance which will have a positive impact on the business environment, principally on SMEs. (European Commission, 2010a, p. 15)

The EU will aim to cut down natural resource use and enhance investment in the EU's existing natural assets by promoting appropriate technologies and production processes. (European Commission, 2010a, p. 15)

2.1.4.6 An Agenda for New Skills and Jobs

The Flagship Initiative entitled An Agenda for New Skills and Jobs proposes to increase employment levels and ensure sustainability of the EU's social models through appropriate conditions that will allow labour markets to modernise. To meet these goals, working people in the EU should be endowed with new skills which help them confront possible new conditions and career shifts as well as unemployment and raise labour productivity. (Committee of the Regions, 2013, p. 47)

In this Agenda, the European Commission (2010f, pp. 2-3) will aim attention at four key priorities:

Firstly, better functioning of labour markets is crucial to deal with high unemployment levels in the EU since it causes huge loss of human capital in the form of discouragement of workers and provoke untimely withdrawal from the labour market and social exclusion. The role of flexicurity³ policies is important in the process of modernising labour markets because they could accelerate the momentum of reform, reduce segmentation in the labour market and support gender equality. (European Commission, 2010f, p. 2)

Secondly, a more skilled workforce which is able to contribute and to adapt to technological change with new patterns of work organisation presents challenge regarding the need for rapidly changing skills and the constant skills discrepancies in the EU labour market. In order to increase productivity, competitiveness, economic growth and, ultimately, employment, the EU should invest more in education and training systems, anticipate skills needs, provide matching and guidance services. Two of the headline targets within the policy Europe 2020, namely reducing school drop-outs to 10 % or less and increasing completion of tertiary or equivalent education to at least 40 % by 2020, are designed to improve education levels as well. Other significant benefits for growth and employment are mobility within the EU and the influx of migrants from third countries, but their potential is not fully exploited and focused on meeting labour market needs. (European Commission, 2010f, p. 2)

³ “Flexicurity is an integrated strategy for enhancing, at the same time, flexibility and security in the labour market. It attempts to reconcile employers' need for a flexible workforce with workers' need for security – confidence that they will not face long periods of unemployment” (European Commission, n.d.).

Thirdly, better job quality and working conditions, that are interlinked with each other, should be promoted, since high standards of job quality in the EU are associated with equally high labour productivity and participation in employment. Today's career requirements are characterised by greater transitions between more intensive and demanding jobs and by new forms of work organisation, therefore working conditions as well as the physical and mental health of workers need to be taken into consideration. (European Commission, 2010f, pp. 2-3)

Fourthly, there should be stronger policies to support job creation and demand for labour. Thus, the right conditions to create more jobs must be delivered, even in companies with high skills and R&D intensive business models. In order to help the long-term unemployed and other workers leaving the labour market, selective reductions of non-wage labour costs or well-targeted employment subsidies can motivate employers to hire these people. Policies that use key sources of job creation and support entrepreneurship and self-employment are also needed to increase employment. (European Commission, 2010f, p. 3)

2.1.4.7 European Platform against Poverty and Social Exclusion

This Flagship Initiative is oriented on people experiencing poverty and social exclusion. Raising awareness of these people and recognising their fundamental rights should enable them to live in dignity and to participate actively in society while ensuring economic, social and territorial cohesion in the EU. (Committee of the Regions, 2013, p. 50)

The commitments of the European Commission (2010a, p. 18) in this Flagship Initiative are the following:

The EU will concentrate on the open method of coordination in the field of social exclusion and social protection which will convert into a platform for collaboration, mutual evaluation and exchange of good practice, and into a tool to support the commitment of public and private actors to reduce social exclusion and take concrete action, including through targeted assistance from the structural funds, specially from the ESF. (European Commission, 2010a, p. 18)

The EU will create and implement programmes in order to support social innovation for the most vulnerable groups. In practice this means to provide innovative education, training and employment opportunities for deprived communities, combat

discrimination (e.g. disabled) and develop a new agenda for integrating migrants to enable them to utilise their full potential. (European Commission, 2010a, p. 18)

The EU will work on how to ensure better access to health care systems and will carry out an assessment of the adequacy and sustainability of social protection and pension systems. (European Commission, 2010a, p. 18)

2.1.5 Integrated Guidelines

The Integrated Guidelines, also known as the “Europe 2020 Integrated Guidelines”, introduces the groundwork for the policy Europe 2020 and reforms at Member State level. In order to ensure coherence and clarity, the number of guidelines is limited. They replace the previous set of twenty four and reflect conclusions of the European Council. The guidelines are harmonised to secure that policies at national and EU level contribute fully to achieving the goals of the policy Europe 2020. Synchronous monitoring of these goals will help Member States to gain the positive spill-over effects of coordinated structural reforms, especially within the euro area. (European Commission, 2010g, p. 3)

The ten Integrated Guidelines are the following:

- Guideline 1: Ensuring the quality and the sustainability of public finances;
- Guideline 2: Addressing macroeconomic imbalances;
- Guideline 3: Reducing imbalances in the euro area;
- Guideline 4: Optimising support for R&D and innovation, strengthening the knowledge triangle and unleashing the potential of the digital economy;
- Guideline 5: Improving resource efficiency and reducing greenhouse gases emissions;
- Guideline 6: Improving the business and consumer environment and modernising the industrial base;
- Guideline 7: Increasing labour market participation and reducing structural unemployment;
- Guideline 8: Developing a skilled workforce responding to labour market needs, promoting job quality and lifelong learning;
- Guideline 9: Improving the performance of education and training systems at all levels and increasing participation in tertiary education;
- Guideline 10: Promoting social inclusion and combating poverty (European Commission, 2010g, p. 4).

Guidelines 1-6 addresses economic policies of Member States and of the Union and guidelines 7-10 focuses on employment policies of Member States (European Commission, 2010g, p. 7).

2.1.6 A thematic approach and country reporting

The European Commission (2010a, p. 25) notes that the policy Europe 2020 should be coordinated on the basis of a thematic approach and a more targeted country surveillance.

A thematic approach would focus on the main priorities, notably on meeting the five headline targets. The policy Europe 2020 together with its Flagship Initiatives would be main instruments, so the action at EU as well as Member State level is required. The thematic approach demonstrates the EU dimension, clearly shows the interdependence of Member States' economies and allows greater selectivity of specific initiatives that move the policy Europe 2020 forward and help attain the EU's and national headline targets. (European Commission, 2010a, p. 25)

Country reporting would help Member States to define and implement exit strategies, restore macroeconomic stability, identify national bottlenecks and return their economies to sustainable growth and public finances, thus it would, in general, contribute to achieving goals of the policy Europe 2020. Country reporting would not only include fiscal policy, but also key macroeconomic areas of interest associated with growth and competitiveness (i.e. macro-imbalances). To support the decisions that Member States will have to take, given the restraints on their public finances, an integrated approach to policy design and implementation should be ensured. A special attention will be paid to the running of the euro area and the interdependence between Member States. (European Commission, 2010a, p. 25)

2.1.7 The European Semester

The success of the policy Europe 2020 relies fundamentally on the coordination of the Member States' efforts. For this purpose, the European Commission has established an annual cycle of economic policy management known as the European Semester. *“Its main objectives are to support structural reforms, create more jobs and growth in line with the policy Europe 2020, raise investment, ensure sound public finances (avoid excessive*

government debt), comply with the Stability and Growth Pact (SGP)⁴ and prevent excessive macroeconomic imbalances in the EU.” (Eurostat, 2019, pp. 15-16)

The European Semester has five phases (see Appendix A):

- During the first phase, the European Commission adopts the Annual Growth Survey (AGS), which sets out the overall economic and social priorities of the EU and Member States for the coming year.
- In the second phase, the European Commission publishes the Alert Mechanism Report (AMR)⁵, the Joint Employment Report and Recommendations for the Euro Area along with a Staff Working Document.
- During the third phase, the European Commission prints a Country Report, which analyses the economic and social situation and progress in implementing both the Country Specific Recommendations (CSRs)⁶ and the policy Europe 2020. This report is addressed to Member States and for those named in the AMR, it also contains the “in-depth review” of possible balances.
- In the fourth phase, each Member State submits the National Reform Programmes (NRPs) and Stability and Convergence Programmes (SCPs) where concrete reforms and measures towards implementing both the country specific recommendations and the policy Europe 2020 are suggested.
- During the fifth phase, the European Commission adopts drafts of CSRs for each Member State (excluding drafts under the Stability Support Programme⁷). Then, CSRs are approved by the Council. The recommendations deal with matters that will require the most urgent attention in the next twelve to eighteen months because of their macro- and socio-economic importance. They are corresponding with the policy Europe 2020 as well. (Eurostat, 2019, pp. 16-17)

⁴ “*The Stability and Growth Pact is a set of rules designed to ensure that countries in the EU pursue sound public finances and coordinate their fiscal policies*” (European Commission, n.d.).

⁵ “*The Alert Mechanism Report reviews macroeconomic developments in individual EU Member States*” (Consilium, 2020).

⁶ “*The country specific recommendation provide policy guidance tailored to each EU country on how to boost jobs and growth, while maintaining sound public finances*” (European Commission, n.d.).

⁷ “*The Stability Support Programme outlines the Member States' medium-term budgetary strategy*” (Consilium, 2020).

2.1.8 Distribution of responsibilities

For the policy Europe 2020 to be successful, it needs to be ensured that various actors involved, such as the European Council, the Council of Ministers, the European Commission, the European Parliament, national, regional and local authorities, stakeholders and civil society, who should know what their responsibilities are and how they will contribute to the implementation of the policy Europe 2020.

The role of the European Council should change in the future, since now it figures as the last component in the decision-making process of the policy Europe 2020. The European Council is in charge of incorporation of policies and management of the interrelationship between Member States and the EU, therefore it should guide the policy Europe 2020. Doing so, the European Council will have a chance to focus on specific themes, such as research and innovation or skills, at its future meetings, while giving advice and the necessary impulses. (European Commission, 2010a, p. 27)

The responsibilities of the Council of Ministers will be realise the policy Europe 2020 and, at the same time, attain the goals in the areas for which it is responsible. At Council gatherings, the exchange of policy information of good practices between Member States will be discussed. (European Commission, 2010a, p. 27)

The European Commission will contribute to the implementation of the policy Europe 2020 by controlling the situation based on a set of indicators designed to achieve the smart, sustainable and inclusive growth. Each year, it will publish a report dealing with advancement towards meeting the agreed headline targets, and evaluate Country Reports as well as Stability and Convergence Programmes. This process will also include a presentation of policy recommendations or warnings, policy proposals in order to accomplish the aims of the policy Europe 2020 and a specific assessment of progress achieved within the euro-area. (European Commission, 2010a, p. 27)

The role of the European Parliament should be vital for the policy Europe 2020 because it figures not only as a co-legislator, but also as a driving force which mobilises citizens and their national parliaments. (European Commission, 2010a, p. 27)

The responsibilities of national, regional and local authorities are to carry out the partnership, make parliaments, social partners and representatives of civil society cooperate with each other and be helpful in preparing National Reform Programmes as well as in its implementation. Through communication between different levels of

government, the EU's objectives are passed on its citizens, which contributes to the fulfilment of the policy Europe 2020. (European Commission, 2010a, p. 27)

Concerning stakeholders and civil society, the Economic and Social Committee as well as the Committee of Regions should work more together as the exchange of good practices, benchmarking and networking, promoted by several Member States, belong to another useful tools to create ownership and dynamism around the need for reform. (European Commission, 2010a, p. 28)

2.2 The results of implementation of the policy Europe 2020 in previous years

The results of the implementation of this policy have been examined in previous years. Eurostat (2019) printed the publication named *Smarter, greener, more inclusive? Indicators to support the Europe 2020 strategy* containing the information about the progress of the EU and its Member States towards the targets of the policy Europe 2020 in 2018 based on nine headline indicators. This is the latest official evaluation of the implementation of this policy on the basis of headline indicators so far. The publication is divided into five thematic areas: employment, R&D and innovation, climate change and energy, education, poverty and social exclusion. As for the employment, its rate within the EU has increased in recent years and reached a record high of 73,2 %. The employment rates among Member States ranged from 59,5 % in Greece to 82,6 % in Sweden. Mainly northern and central European countries had the highest rates and the EU target of 75 % was surpassed by half of the Member States. On the contrary, the employment rates of Mediterranean countries, together with Romania and Belgium, were less than 70 %. Regarding the education, the share of early leavers has declined, but slowly, in recent years. Some southern and eastern European countries (Croatia, Slovenia, Lithuania, Greece and Poland) recorded rates below 5 %, thus the lowest ones. On the other hand, Member States such as Spain (17,9 %), Malta (17,5 %) and Romania (16,4 %) reached the highest shares in the EU. Overall, seventeen Member States were already under the EU target of less than 10 %. The proportion of young people who have completed tertiary education has steadily and considerably risen in recent years. The highest shares were recorded in northern and central Europe. Nineteen Member States managed to exceed the EU target of 40 %. Romania (24,6 %) and Italy (27,8 %) had the lowest shares in the EU.

Directorate-General for Employment, Social Affairs and Inclusion (2019) published *Assessment of the Europe 2020 Strategy - Joint report of the Employment Committee (EMCO) and Social Protection Committee (SPC)*, where the progress in two headline indicators such as employment rate of the age group 20-64 as well as poverty and social exclusion in 2017 and 2018 is evaluated. The share of early school leavers and educational attainment is mentioned there too. In 2018, the EU employment rate reached the value of 73,2 % and by the last quarter of this year it amounted to 73,5 % which was the highest level ever recorded. In the same year, thirteen Member States were successful in achieving their national target. Moreover, in contrast to 2017, the employment rate increased in all of them. In 2017, there were 113 million people living at risk of poverty or social exclusion in the EU. In southern countries, particularly Cyprus, Greece, Spain and Italy, which were affected by the economic crisis in 2008, a large proportion of people were at risk of poverty or social exclusion in 2017. Some of the northern countries such as Denmark, the Netherlands and Sweden struggled with rises in the share of the population at risk of poverty or social exclusion. On the other hand, many of the newer Member States in central and eastern Europe together with Portugal attained improvements in reducing poverty and social exclusion. As regards the share of early school leavers, its value was 10,6 % in 2018, just above the Europe 2020 target. The educational attainment in the EU reached 40,7 % in 2018.

Fedajev et al. (2019) assessed the progress made towards the targets of the policy Europe 2020. The aim of their research was, specifically, to find out which Member States are the best and which are the worst performers in the implementation of the policy Europe 2020 in 2016. For the assessment, they chose a multi-objective decision-making approach (MULTIMOORA method) and the entropy method for calculation of the Shannon Entropy Index. The MULTIMOORA method was used to carry out a comparative analysis of the EU countries with regard to the nine headline indicators and to group them according to the level of the progress made by the countries in achieving the set targets. The Shannon Entropy Index was used to assess the differences among the EU countries in implementing individual strategic priorities. Based on the results obtained by MULTIMOORA method, countries were divided into three groups – core (Austria, Croatia, the Czech Republic, Denmark, Finland, France, Lithuania, Slovenia and Sweden), semi-periphery (Estonia, Germany, Greece, Hungary, Ireland, Latvia, Poland, Portugal, Slovakia and United Kingdom) and periphery (Belgium, Bulgaria, Cyprus,

Italy, Luxembourg, Malta, the Netherlands, Romania and Spain). Brauers & Zavadskas (2013) explain that core countries have made significant progress in all or the largest number of the policy Europe 2020 strategic fields; semi-periphery countries have made improvements in certain strategic fields and periphery countries are lagging behind the previous two groups of countries (as cited in Fedajev et al., 2019, p. 6). In general, the majority of the EU countries have made some progress towards the policy Europe 2020 and particularly Sweden, Denmark and Austria were the best performers. Regarding the results of the Shannon Entropy Index, the greatest differences was noticed in the share of renewable energy in the final energy consumption, R&D expenditures, early school leavers and the final energy consumption. The EU countries were being faced significant challenges in achieving smart and sustainable growth, while most of them were relatively successful in achieving inclusive growth.

Pal'ová and Václavíková (2017) evaluated the progress of the policy Europe 2020 among the EU Member States by results of conducted comparison of the implementation of its targets and objectives in 2015. In the research, they employed methods such as scaling technique, semaphore method, cluster analysis and spatial analysis used by R software. They divided all the EU countries into five groups on the basis of the fulfilment of headline indicators and targets (i.e. group no. 1 – the most successful, group no. 5 – the worst) and obtained these results: group no. 1 (the Czech Republic, Denmark, Estonia, Lithuania, Slovenia, Finland and Sweden), group no. 2 (Croatia, Italy, Latvia, the Netherlands, Austria, Slovakia and the United Kingdom), group no. 3 (Greece, Cyprus, Luxembourg and Hungary), group no. 4 (Bulgaria, Germany, Ireland, France and Romania), group no. 5 (Belgium, Spain, Malta, Poland and Portugal). Taking into consideration the results, mainly Scandinavian countries belonging to the EU, the Baltic countries except Latvia, and the Czech Republic and Slovenia are the most successful in the implementation of the policy Europe 2020. To be more precise, Denmark is the most successful implementator from group no. 1., followed by Sweden. The worst implementator is Malta as it was not able to reach any target.

Duř'ová Spišáková, Gontkovičová and Hajduová (2016) focused in their research on the education targets. The aim was to analyse and assess the level of accomplishment of two indicators (early leavers from education and training, and tertiary education attainment) in the Member States in 2014 with the emphasis on the southern countries of the EU. They used analysis, spatial comparison and trend comparison, synthesis, induction,

deduction and mathematical – statistical methods. Concerning the early leavers from education and training in the EU, Latvia achieved the best results. Malta, on the other hand, had the worst performance. In terms of tertiary education attainment, Lithuania and Luxembourg had the best results, whereas Italy and Romania had the worst. In Lithuania and Cyprus, more than 50 % of the population aged 30-34 had a tertiary education. From the southern EU countries, Portugal, Malta, Bulgaria, Croatia, Italy and Spain were still below the target, especially Portugal was lagging the most behind the target.

Balcerzak (2015) assessed the EU countries based on the level of fulfilment aims of the policy Europe 2020 in 2013. He made a ranking of EU countries with application of zero unitarisation method. On the basis of this ranking, the countries were grouped into five classes with natural breaks method (Jenks optimisation method): group A – countries with very high level of synthetic measure of fulfilment aims of the strategy (Denmark, Finland and Sweden), group B – countries with a high position (Austria, the Czech Republic, Estonia, France, Germany, Lithuania, the Netherlands, Slovenia and United Kingdom), group C - countries with an average position (Belgium, Ireland, Latvia, Poland and Slovakia), group D - countries with low position (Hungary, Italy, Portugal and Spain), group E - countries with very low position in the sphere of reaching the targets of the policy Europe 2020 (Bulgaria, Greece and Romania). In the group A, Sweden was the most successful performer and the worst in the group E was Greece.

Kukuła (2017) chose to evaluate the value of three indicators of the policy Europe 2020, namely raising the employment rate of people aged 20-64 during 2010-2015, an increase in expenditure on R&D in the EU Member States during 2010-2015 and an increase in the number of people with higher education in the 30-34 age group in the EU Member States during 2010-2016. In his work, methods of a descriptive, statistical and comparative analysis were used. In the case of the first indicator (raising the employment rate of people aged 20-64), Estonia (↑ 9,7 %), Sweden (↑ 9,7 %), Lithuania (↑ 9,0 %) and Latvia (↑ 8,2 %), made the most progress. On the contrary, Greece (↓ 8,9 %), Italy (↓ 8,9 %), Cyprus (↓ 7,1 %) and Romania (↓ 7,1 %) had problems with achieving this indicator. Denmark (↑ 0,9 %), the Czech Republic (↑ 0,61 %), Slovakia (↑ 0,56 %) and Greece (↑ 0,36 %) were the most successful in fulfilment of the second indicator (an increase in expenditure on R&D), while Finland (↓ 0,83 %), Estonia (↓ 0,8 %), Portugal (↓ 0,25 %) and Luxembourg (↓ 0,2 %) were not. Concerning the third indicator (an increase in the number of people with higher education in the 30-34 age group), the leaders were Austria

(↑ 16,3 %), Lithuania (↑ 14,5 %), Greece (↑ 13,5 %) and Portugal (↑ 10,3 %) and only Spain (↓ 1,8 %) and Finland (↓ 0,1 %) did not make progress.

Dijkstra and Athanasoglou (2015) developed the Europe 2020 Index in order to see how the EU Member States implement the headline targets of the policy Europe 2020. For the national level, the principle is as follows:

Each country receives between 0 and 20 points for each target. If a country has reached a headline target, it receives 20 points. The countries furthest removed from this target get 0 points. The rest receive a score proportional to the distance to the target. The index is the sum of these points. If a country has reached all targets it scores 100. (Dijkstra & Athanasoglou, 2015, p. 3)

Based on the results obtained by the Europe 2020 Index in 2010-2012, mainly the three Baltic states (Estonia, Latvia and Lithuania) made the most progress in all five headline targets unlike Cyprus, Greece and Portugal which were not successful in meeting the targets. Sweden and Denmark managed to meet or exceeded all the headline targets and Finland was also not far from their achievement during 2012. By contrast, Bulgaria and Romania did not make significant progress, so they were very far from reaching these targets. (Dijkstra & Athanasoglou, 2015, p. 5)

3 Methodology

This section of the master thesis deals with methodology. It consists of description and explanation of aim and objectives, chosen indicators, research type, data collection and analysis.

3.1 Aim and objectives

The aim of the master thesis was to find out the results of current implementation of the policy Europe 2020 on the basis of chosen indicators (early leavers from education and training, tertiary education attainment and employment rate – age group 20-64). By choosing these indicators, the results of fulfilment of three EU headline targets (the share of early school leavers should be under 10 %; at least 40 % of the younger generation should have a tertiary degree; 75 % of the population aged 20-64 should be employed) by each Member State were obtained. More precisely, within the research, three different rankings (each based on one indicator) of Member States were created. Firstly, Member States were ranked according to their percentage success in achieving the three previous mentioned EU targets in 2019. Secondly, Member States were compared with each other and ranked according to the Member State that had the best result under each target in 2019, using the Point Method. Thirdly, Member States were ranked according to the percentage difference in implementation of the targets in 2019 compared to the year 2010, when the policy Europe 2020 entered into force. Two additional rankings were created. In the first, Member States were ranked according to their average fulfilment of all three EU targets in 2019, and in the second, Member States were compared in terms of the number of fulfilled EU targets, within the three above mentioned, in 2019 compared to 2010.

3.2 Explanation of chosen indicators

For the purpose of present research, the following indicators were chosen:

- Early leavers from education and training, total.
- Tertiary education attainment, total.
- Employment rate – age group 20-64, total.

These three indicators were chosen intentionally as they are closely interlinked with each other. Education and training are an important part of the policy Europe 2020, especially in terms of growth and jobs. They help boost productivity, innovation and

competitiveness. At present, it is optimal for citizens of the EU to have completed upper secondary education which will prevent them from lacking key skills, facing serious and continual problems in the labour market (e.g. precarious and low-paid jobs) as well as experiencing poverty and social exclusion. The possibility for early school leavers to join adult learning and participate in public life is smaller. Regarding tertiary education, it provides skilled human capital. Therefore, a loss of these skills has negative effect on economic growth and employment, if rapid technological progress, intense global competition and labour market demand for increasing levels of skills are considered. (Eurostat, 2019, pp. 58-59)

As for employment, paid employment plays a crucial role in human life, since it ensures adequate living standards and provides the necessary base for achieving people's personal goals and aspirations. In addition, it is regarded to be one of the cornerstones of socio-economic development and well-being by contributing to economic performance, quality of life and social inclusion. (Eurostat, 2019, p. 22)

3.3 Research type

There are two types of research in general: qualitative and quantitative. Briefly, the difference between these two is that “*qualitative research generates “textual data” (non-numerical) while quantitative research produces “numerical data” or information that can be converted into numbers*” (Farnsworth, 2019). In order to find out the results of current implementation of the policy Europe 2020 on the basis of chosen indicators, quantitative research was carried out.

According to Bhandari (2020), quantitative research is “*the process of collecting and analyzing numerical data which can be used to find patterns and averages, make predictions, test causal relationships, and generalize results to wider populations*”. Quantitative research performs analysis using mathematically based methods, thus investigated data have to be in numerical form (Muijs, 2004, pp. 1-2). Advantages and disadvantages of quantitative research are mentioned in the table below.

Table 3: Advantages and disadvantages of quantitative research

Advantages	Disadvantages
Replication Repeating the study is possible because of standardized data collection protocols and tangible definitions of abstract concepts.	Superficiality Using precise and restrictive operational definitions may inadequately represent complex concepts. For example, the concept of mood may be represented with just a number in quantitative research, but explained with elaboration in qualitative research.
Direct comparisons of results The study can be reproduced in other cultural settings, times or with different groups of participants. Results can be compared statistically.	Narrow focus Predetermined variables and measurement procedures can mean that a researcher ignores other relevant observations.
Large samples Data from large samples can be processed and analyzed using reliable and consistent procedures through quantitative data analysis.	Structural bias Despite standardized procedures, structural biases can still affect quantitative research. Missing data, imprecise measurements or inappropriate sampling methods are biases that can lead to the wrong conclusions.
Hypothesis testing Using formalised and established hypothesis testing procedures means that a researcher has to carefully consider and report research variables, predictions, data collection and testing methods before coming to a conclusion.	Lack of context Quantitative research often uses unnatural settings like laboratories or fails to consider historical and cultural contexts that may affect data collection and results.

Source: Author based on Bhandari (2020)

3.4 Data collection and analysis

The secondary data available on the website of Eurostat, which is the statistical office of the European Union situated in Luxembourg and whose mission is to provide high quality statistics for Europe (Eurostat, n.d.), collected 21 June 2020, were used in the present research. The data for years 2010 and 2019, expressed as a percentage, corresponding to the numerical value obtained on the basis of the individual indicator were used (see Appendix B).

To acquire results of current implementation of the policy Europe 2020, a total of nine rankings (three for each chosen indicator) and two additional rankings of Member States were created:

- Rankings of Member States based on their fulfilment of each selected target in 2019;
- Rankings of Member States based on their comparison in each selected target using the Point Method;
- Rankings of Member States based on change in fulfilment of selected target in 2019 compared to 2010;
- Ranking of Member States based on the average points obtained within all three indicators;
- Ranking of Member States based on the number of targets fulfilled in 2019 compared to 2010.

Column charts were used to demonstrate the results and radar charts were used to better show the results of individual Member States.

As for concrete Member States, twenty eight were taken into consideration. Although Croatia has been a member of the EU since 2013, due to the fact that the Eurostat also provides data for 2010, it was included in the ranking. The United Kingdom was still a member of the EU in 2019, so it was also included.

3.4.1 Rankings of Member States based on their fulfilment of each selected EU target in 2019

Three rankings of this type were made within the master thesis, i.e. one ranking for the indicator early leavers from education and training, one for tertiary education attainment and one for employment rate – age group 20-64 as well.

Concerning the indicator early leavers from education and training, it comes from the EU target which is that the share of these people should be under 10 % by 2020. In other words, the smaller this share, the better the overall result of a Member State. In order to count to what percentage this target was implemented by individual Member States in 2019, the expression “under 10 %” needed to be expressed by specific variable. Therefore, the variable 9,9 % which meets this condition was decided to use. Then, the success of implementing the target based on this indicator in the case of each Member State was calculated using the following formula:

$$IL_{xC} = \frac{TL_{x(C)}}{IL_{x(C)}} \cdot 100 \quad (1)$$

where $IL_{x(C)}$ represents percentage of achievement of the final target value by following the value of indicator x by country C in 2019; $TL_{x(C)}$ represents the indicator x value planned to achieve by country C in 2019 and $IL_{x(C)}$ represents the indicator x value achieved by country C in 2019. (Pal'ová & Václavíková, 2017, p. 2379)

This is a modified form of the original formula that was employed by Pal'ová & Václavíková (2017) when evaluating the progress of the policy Europe 2020 among Member States by results of conducted comparison of the implementation of its targets and objectives in 2015. It had to be adjusted because of the indicator, for which the smaller the value, the better the result. The original formula was applied for the following two indicators where the opposite is desired. The variables, expressed as a percentage, were put into the formula and each percentage result calculated was rounded to an integer. Afterwards, Member States were ranked from the best to the worst according to the result achieved. These three steps were also applied in the case of the two following indicators. As the indicator tertiary education attainment is concerned, it was established on the basis of the EU target which states that at least 40 % of the younger generation (age group 30-34) should have a tertiary degree by 2020. Meaning, the bigger this share, the better the overall result of a Member State. Here also, to count the percentage value of this target that was attained by individual Member States in 2019, the expression “at least 40 %” needed to be expressed by specific variable. For this purpose, the variable 40 % which is in accordance with the condition was chosen. Then, the success of implementing the target based on this indicator was calculated by the following formula:

$$IL_{xC} = \frac{IL_{x(C)}}{TL_{x(C)}} \cdot 100 \quad (2)$$

where $IL_{x(C)}$ represents percentage of achievement of the final target value by following the value of indicator x by country C in 2019; $IL_{x(C)}$ represents the indicator x value achieved by country C in 2019 and $TL_{x(C)}$ represents the indicator x value planned to achieve by country C in 2019. (Pal'ová & Václavíková, 2017, p. 2379)

Regarding the indicator employment rate – age group 20-64, it was derived from the EU target whose aim is that 75 % of the population in this age group should be employed by 2020. As with the previous indicator, the bigger this share, the better the overall result of a Member State. Moreover, the variable is precisely determined, so that it did not need to be further adjusted to calculate the percentage of success of this target scored by

individual Member States in 2019. For this calculation, the same formula as in the previous case was used.

3.4.2 Rankings of Member States based on their comparison in each selected EU target using the Point Method

As in the previous subchapter, three rankings were created, i.e. one ranking for the indicator early leavers from education and training, one for tertiary education attainment and one for employment rate – age group 20-64, but now with the help of the Point Method.

The Point Method is one of the statistical methods of multidimensional scaling which are applied for interstate comparisons. *“These methods could be generally applicable for special comparisons of objects characterized by a number of indicators or, to put it differently, for various tasks of classification and typology of objects”* (Škodová Parmová, 2011).

American M. K. Bennet (1951) is considered to be the author of the Point Method (PM). The procedure for using this method is as follows:

For each indicator a state is found by which a corresponding indicator reaches the maximum value (if a growth of this indicator is a positive phenomenon) or the minimum value (if, on the contrary, a fall of the indicator is a positive phenomenon). The state mentioned obtains 1000 points for the indicator and the other states obtain points from 0 to 1000 in accordance with how many per-mille from the maximum/minimum value is the value of the indicator. If the minimum value of the indicator is the basis, the inverse value of this rate is created. Points obtained for single indicators in each state are added and these totals characterize the efficiency of the economy. If an indicator is characterized by negative values, its state obtains negative points in the same way as it is in the positive example explained above. PM allows to sum up values for indicators identified in various measure units. It would not be possible to add these values in original units to one single synthetic characterization that is a dimensionless figure (number). Such an aggregative quantity lacks an objective sense, however, it is not an obstacle for setting up multidimensional categories such as economy efficiency. On the basis of the total of points obtained, we can set a rank of countries according to the efficiency of economy and we can also set the differences in the efficiency of economy or we can consider, how many times the

efficiency of a particular country is higher than the efficiency of the other. If PM is applied several times for different number of indicators, an average number of points falling to a single indicator should be applied for comparison of results instead of just summing up the points. (Škodová Parmová, 2011)

The results of PM could be obtained by applying this formula:

$$\bar{m}_j = \frac{1}{p} \sum_{i=1}^p \frac{x_{ij}}{x_{i,max}} \cdot 1000 \text{ resp. } \frac{x_{i,min}}{x_{ij}} \quad (3)$$

where x_{ij} is a value of i^{th} indicator in j^{th} country, $i = 1, 2, \dots, p$ is a number of identified indicators; $j = 1, 2, \dots, n$ is a number of observed countries; $x_{i,max}$ is the maximum value of i^{th} indicator; $x_{i,min}$ is the minimum value of i^{th} indicator and \bar{m}_j is an average number of points falling in j^{th} country to a single indicator. (Škodová Parmová, 2011)

In order to create the ranking of Member States within the indicator early leavers from education and training, the minimum value of this indicator was chosen as a basis because a fall of the indicator is a positive phenomenon. As regards to the indicators tertiary education attainment and employment rate – age group 20-64, the maximum value of these indicators was picked as a basis, since a growth of these indicators is a positive phenomenon. The variables in the form of percents were put in the formula given above and the number of points received was rounded to an integer. Member States were then ranked from a Member State with the most points to a Member State with the least points.

3.4.3 Rankings of Member States based on change in fulfilment of each selected EU target in 2019 compared to 2010

Within each selected indicator which were early leavers from education and training, tertiary education attainment and employment rate – age group 20-64, three rankings were made.

To be able to make these rankings, it was necessary to know the variables of individual Member States in 2019 as well as in 2010. The variables for 2019 came from the results obtained in the first analysis which dealt with the ranking based on fulfilment of each chosen EU target by its Member States in 2019. The variables for 2010 were subsequently calculated employing the same procedure as to obtain the variables for 2019. Afterwards, the change in 2019 compared to 2010 was determined as the difference between these two variables expressed in percents. Each result obtained was rounded to an integer.

Member States were then ranked from those that made the most progress to those with the least.

3.4.4 Ranking of Member States based on the average points within all three indicators

This ranking was created based on the results of the Point Method. To find out the average number of points for all three indicators in each Member State, the points obtained for each indicator were first summed and then the arithmetic mean was calculated. The result was rounded to an integer. Then, Member States were ranked from the best to the worst in relation to the points achieved.

3.4.5 Ranking of Member States based on the number of EU headline targets fulfilled in 2019 compared to 2010

As to make this ranking of Member States, it was essentially to know the number of selected EU targets that were fulfilled in 2019 and 2010. This number could take four forms, i.e. 0-3, depending on how many targets each Member State fulfilled. In order to find out this number, the data provided by the Eurostat, where the precise numerical value reached within each indicator is stated, were used (see Appendix B). Thereafter, the change in 2019 compared to 2010 was determined as the difference between these two numbers. Member States were then divided into groups on the basis of progress they made.

4 Results

This chapter of the master thesis deals with the results. In the first part, three rankings showing Member States' implementation of the policy Europe 2020 on the basis of three chosen indicators, and two additional rankings are described. The results obtained in these rankings are also demonstrated in graphs (see Appendix C). In the second part, the results of each Member State shown in individual graphs are presented and interpreted.

4.1 Early leavers from education and training indicator

The results of first ranking are presented in the Table 4. From the table, it can be seen that nineteen Member States (Croatia, Lithuania, Greece, Slovenia, Ireland, Poland, Sweden, the Czech Republic, Luxembourg, Finland, the Netherlands, Austria, France, Slovakia, Belgium, Latvia, Cyprus, Estonia and Denmark) were successful when fulfilling the target on early leavers from education and training in 2019, whereas nine Member States (Germany, Portugal, the United Kingdom, Hungary, Italy, Bulgaria, Romania, Malta and Spain) were still above it. The Czech Republic is placed 8th with the result of 148 %. Thus, it was among the ten best performing Member States.

The best performers of the successful ones were Croatia (330 %), Lithuania (248 %) and Greece (242 %). Croatia surpassed this target about three times, Lithuania and Greece about two and a half times. The worst performers of unsuccessful Member States were Romania (65 %), Malta (59 %) and Spain (57 %). The worst of them – Spain lacked 43 % to achieve the EU headline target.

The results range from 330 % which is the highest value to 57 % which is the lowest value. This shows that there were large differences in fulfilment between Member States. The average level of fulfilment for the whole EU, given Member States' individual values of this indicator, was 9,4 %.

Table 4: Ranking of Member States based on their fulfilment of the target on early leavers from education and training in 2019

Member State	EU target (%)	Value of indicator (%)	Fulfilment of the target (%)	Position
Croatia	9,9	3,0	330	1.
Lithuania	9,9	4,0	248	2.
Greece	9,9	4,1	242	3.
Slovenia	9,9	4,6	215	4.
Ireland	9,9	5,1	194	5.
Poland	9,9	5,2	190	6.
Sweden	9,9	6,5	152	7.
Czech Republic	9,9	6,7	148	8.
Luxembourg	9,9	7,2	138	9.
Finland	9,9	7,3	136	10.
Netherlands	9,9	7,5	132	11.
Austria	9,9	7,8	127	12.
France	9,9	8,2	121	13.
Slovakia	9,9	8,3	119	14.
Belgium	9,9	8,4	118	15.
Latvia	9,9	8,7	114	16.
Cyprus	9,9	9,2	108	17.
Estonia	9,9	9,8	101	18.
Denmark	9,9	9,9	100	19.
Germany	9,9	10,3	96	20.
Portugal	9,9	10,6	93	21.
United Kingdom	9,9	10,9	91	22.
Hungary	9,9	11,8	84	23.
Italy	9,9	13,5	73	24.
Bulgaria	9,9	13,9	71	25.
Romania	9,9	15,3	65	26.
Malta	9,9	16,7	59	27.
Spain	9,9	17,3	57	28.

Source: Author

The results of second ranking are demonstrated in the Table 5. The same order of Member States as in the previous case was created using the Point Method. Croatia obtained 1000 points, since its value of indicator was the lowest (3,0 %), followed by Lithuania (4,0 %) with 750 points and Greece (4,1 %) with 732 points. Spain scored 173 points because its value of indicator was the highest (17,3 %), followed by Malta (16,7 %) which received 180 points and Romania (15,3 %) with 196 points. The Czech Republic obtained 448 points according to its value of indicator which was 6,7 %. The point range is 1000 to

173, so even in this table, there is a clear difference in how individual Member States performed this EU headline target.

Table 5: Ranking of Member States based on their comparison in the target on early leavers from education and training in 2019 using the Point Method

Member State	Minimum value of indicator (%)	Value of indicator (%)	Points	Position
Croatia	3,0	3,0	1000	1.
Lithuania	3,0	4,0	750	2.
Greece	3,0	4,1	732	3.
Slovenia	3,0	4,6	652	4.
Ireland	3,0	5,1	588	5.
Poland	3,0	5,2	577	6.
Sweden	3,0	6,5	462	7.
Czech Republic	3,0	6,7	448	8.
Luxembourg	3,0	7,2	417	9.
Finland	3,0	7,3	411	10.
Netherlands	3,0	7,5	400	11.
Austria	3,0	7,8	385	12.
France	3,0	8,2	366	13.
Slovakia	3,0	8,3	361	14.
Belgium	3,0	8,4	357	15.
Latvia	3,0	8,7	345	16.
Cyprus	3,0	9,2	326	17.
Estonia	3,0	9,8	306	18.
Denmark	3,0	9,9	303	19.
Germany	3,0	10,3	291	20.
Portugal	3,0	10,6	283	21.
United Kingdom	3,0	10,9	275	22.
Hungary	3,0	11,8	254	23.
Italy	3,0	13,5	222	24.
Bulgaria	3,0	13,9	216	25.
Romania	3,0	15,3	196	26.
Malta	3,0	16,7	180	27.
Spain	3,0	17,3	173	28.

Source: Author

The results of third ranking are listed in the Table 6. It can be observed that most of Member States, more precisely twenty, progressed towards this EU headline target when comparing the year 2010. The most successful were Greece (↑ 169 %), Croatia (↑ 140 %), Lithuania (↑ 123 %) and Ireland (↑ 111 %) which exceeded it more than one time. Only Sweden remained with the same result as in 2010, therefore did not improve or deteriorate its position. On the contrary, five Member States (Luxembourg, Bulgaria, Hungary, the Czech Republic and Slovakia) did not make progress, they deteriorated

compared to 2010. It is important to mention that nine Member States (Croatia, Lithuania, Slovenia, Austria, Poland, Sweden, Luxembourg, the Czech Republic and Slovakia) had already fulfilled the target in 2010. Given the latter, Greece and Ireland improved the most in meeting this EU headline target, by contrast Bulgaria and Hungary the least. The Czech Republic deteriorated by 54 % in the comparison with the year 2010, however, still fulfilled the target.

Table 6: Ranking of Member States based on change in fulfilment of the target on early leavers from education and training in 2019 compared to 2010

Member State	Fulfilment of the target in 2010 (%)	Fulfilment of the target in 2019 (%)	Change (%)	Position
Greece	73	242	↑ 169	1.
Croatia	190	330	↑ 140	2.
Lithuania	125	248	↑ 123	3.
Ireland	83	194	↑ 111	4.
Portugal	35	93	↑ 58	5.
France	78	121	↑ 43	6.
Finland	96	136	↑ 40	7.
Latvia	77	114	↑ 37	8.
Belgium	83	118	↑ 35	9.
Netherlands	98	132	↑ 34	10.
Cyprus	78	108	↑ 30	11.
United Kingdom	67	91	↑ 24	12.
Spain	35	57	↑ 22	13.
Italy	53	73	↑ 20	14.
Malta	42	59	↑ 17	15.
Slovenia	198	215	↑ 17	15.
Denmark	86	100	↑ 14	16.
Romania	51	65	↑ 14	16.
Germany	84	96	↑ 12	17.
Estonia	90	101	↑ 11	18.
Austria	119	127	↑ 8	19.
Poland	183	190	↑ 7	20.
Sweden	152	152	0	21.
Luxembourg	139	138	↓ 1	22.
Bulgaria	79	71	↓ 8	23.
Hungary	92	84	↓ 8	23.
Czech Republic	202	148	↓ 54	24.
Slovakia	211	119	↓ 92	25.

Source: Author

4.2 Tertiary education attainment indicator

The results of first ranking are seen in the Table 7. Based on the table, nineteen Member States (Cyprus, Lithuania, Luxembourg, Ireland, Sweden, the Netherlands, the United Kingdom, Denmark, Belgium, France, Finland, Poland, Estonia, Latvia, Slovenia, Spain, Greece, Austria and Slovakia) successfully fulfilled the EU headline target in 2019, but nine Member States (Malta, Portugal, the Czech Republic, Germany, Hungary, Croatia, Bulgaria, Italy and Romania) were unsuccessful. The table shows several Member States with the same results: Slovenia and Spain (both 112 %); the Czech Republic and Germany (both 89 %). The Czech Republic, with the result of 89 %, is placed 20th. It belonged, therefore, to the ten worst performing Member States.

Cyprus (147 %), Lithuania (145 %) and Luxembourg (141 %) were the Member States with the best results. Bulgaria (81 %), Italy (69 %) and Romania (65 %) ended up with the worst results. The worst of them – Romania lacked 35 % to fulfil the EU headline target.

The results range from 147 % which is the highest value to 65 % which is the lowest value. This shows that there were smaller differences in fulfilment between Member States compared to the previous target. The average level of fulfilment for the whole EU, given Member States' individual values of this indicator, was 43,7 %.

Table 7: Ranking of Member States based on their fulfilment of the target on tertiary education attainment in 2019

Member State	EU target (%)	Value of indicator (%)	Fulfilment of the target (%)	Position
Cyprus	40	58,8	147	1.
Lithuania	40	57,8	145	2.
Luxembourg	40	56,2	141	3.
Ireland	40	55,4	139	4.
Sweden	40	52,5	131	5.
Netherlands	40	51,4	129	6.
United Kingdom	40	50,0	125	7.
Denmark	40	49,0	123	8.
Belgium	40	47,5	119	9.
France	40	47,5	119	9.
Finland	40	47,3	118	10.
Poland	40	46,6	117	11.
Estonia	40	46,2	116	12.
Latvia	40	45,7	114	13.

Slovenia	40	44,9	112	14.
Spain	40	44,7	112	14.
Greece	40	43,1	108	15.
Austria	40	42,4	106	16.
Slovakia	40	40,1	100	17.
Malta	40	37,8	95	18.
Portugal	40	36,2	91	19.
Czech Republic	40	35,5	89	20.
Germany	40	35,5	89	20.
Hungary	40	33,4	84	21.
Croatia	40	33,1	83	22.
Bulgaria	40	32,5	81	23.
Italy	40	27,6	69	24.
Romania	40	25,8	65	25.

Source: Author

The results of second ranking are presented in the Table 8. The order of Member States in this table differs slightly from the previous one. Using the Point Method, only two Member States (the Czech Republic and Germany) obtained the same number of points, hence the same rank. Cyprus was awarded 1000 points as its value of indicator was the highest (58,8 %), followed by Lithuania (57,8 %) with 983 points and Luxembourg (56,2 %) with 956 points. Romania scored 439 points because its value of indicator was the lowest (25,8 %), followed by Italy (27,6 %) which received 469 points and Bulgaria (32,5 %) with 553 points. The Czech Republic obtained 604 points on the basis of its indicator's value which was 35,5 %. According to the point range, which is 1000 to 439, differences in fulfilment of this EU headline target by individual Member States are not so great as in the previous target.

Table 8: Ranking of Member States based on their comparison in the target on tertiary education attainment in 2019 using the Point Method

Member State	Maximum value of indicator (%)	Value of indicator (%)	Points	Position
Cyprus	58,8	58,8	1000	1.
Lithuania	58,8	57,8	983	2.
Luxembourg	58,8	56,2	956	3.
Ireland	58,8	55,4	942	4.
Sweden	58,8	52,5	893	5.
Netherlands	58,8	51,4	874	6.
United Kingdom	58,8	50,0	850	7.
Denmark	58,8	49,0	833	8.
Belgium	58,8	47,5	808	9.

France	58,8	47,5	808	9.
Finland	58,8	47,3	804	10.
Poland	58,8	46,6	793	11.
Estonia	58,8	46,2	786	12.
Latvia	58,8	45,7	777	13.
Slovenia	58,8	44,9	764	14.
Spain	58,8	44,7	760	15.
Greece	58,8	43,1	733	16.
Austria	58,8	42,4	721	17.
Slovakia	58,8	40,1	682	18.
Malta	58,8	37,8	643	19.
Portugal	58,8	36,2	616	20.
Czech Republic	58,8	35,5	604	21.
Germany	58,8	35,5	604	21.
Hungary	58,8	33,4	568	22.
Croatia	58,8	33,1	563	23.
Bulgaria	58,8	32,5	553	24.
Italy	58,8	27,6	469	25.
Romania	58,8	25,8	439	26.

Source: Author

The results of third ranking are demonstrated in the Table 9. On the basis of this table, it can be concluded that all Member States improved in meeting this EU headline target in 2019 when compared with 2010. The most successful were Austria (↑ 47 %), Slovakia (↑ 45 %) and Malta (↑ 40 %). Thirteen Member States (Lithuania, Cyprus, Luxembourg, the Netherlands, Denmark, Sweden, the United Kingdom, Estonia, France, Ireland, Belgium, Spain and Finland) had already fulfilled the EU headline target in 2010. Taking into account the latter, Austria, Slovakia and Malta were the Member States with the most progress, on the contrary, Member States such as Germany and Bulgaria made the least progress. The Czech Republic improved by 38 % compared to 2010, therefore it was the fourth best performer of this target.

Table 9: Ranking of Member States based on change in fulfilment of the target on tertiary education attainment in 2019 compared to 2010

Member State	Fulfilment of the target in 2010 (%)	Fulfilment of the target in 2019 (%)	Change (%)	Position
Austria	59	106	↑ 47	1.
Slovakia	55	100	↑ 45	2.
Malta	55	95	↑ 40	3.
Czech Republic	51	89	↑ 38	4.
Greece	72	108	↑ 36	5.
Lithuania	110	145	↑ 35	6.

Cyprus	113	147	↑ 34	7.
Latvia	82	114	↑ 32	8.
Portugal	60	91	↑ 31	9.
Poland	87	117	↑ 30	10.
Luxembourg	115	141	↑ 26	11.
Netherlands	104	129	↑ 25	12.
Slovenia	87	112	↑ 25	12.
Croatia	61	83	↑ 22	13.
Denmark	103	123	↑ 20	14.
Hungary	65	84	↑ 19	15.
Italy	50	69	↑ 19	15.
Romania	46	65	↑ 19	15.
Sweden	113	131	↑ 18	16.
United Kingdom	108	125	↑ 17	17.
Estonia	101	116	↑ 15	18.
Germany	74	89	↑ 15	18.
Bulgaria	70	81	↑ 11	19.
France	108	119	↑ 11	19.
Ireland	129	139	↑ 10	20.
Belgium	111	119	↑ 8	21.
Spain	105	112	↑ 7	22.
Finland	114	118	↑ 4	23.

Source: Author

4.3 Employment rate – age group 20-64 indicator

The results of first ranking are listed in the Table 10. According to it, eighteen Member States (Sweden, Germany, the Czech Republic, Estonia, the Netherlands, the United Kingdom, Denmark, Lithuania, Latvia, Finland, Malta, Austria, Slovenia, Portugal, Cyprus, Hungary, Ireland and Bulgaria) met the EU headline target in 2019, on the other hand, ten Member States (Slovakia, Poland, Luxembourg, France, Romania, Belgium, Spain, Croatia, Italy and Greece) did not achieve it. It can be also observed from the table that many Member States reached the same results: Germany, the Czech Republic, Estonia and the Netherlands (all 107 %); Denmark and Lithuania (both 104 %); Latvia, Finland and Malta (all 103 %); Austria and Slovenia (both 102 %); Portugal and Cyprus (both 101 %); Hungary, Ireland and Bulgaria (all 100 %); Poland and Luxembourg (both 97 %); France and Romania (both 95 %). The Czech Republic is placed 2nd, thus it was among the three best performing Member States.

The best results had Sweden (109 %); Germany, the Czech Republic, Estonia and the Netherlands (all 107 %); the United Kingdom (106 %). Greece (82 %), Italy (85 %) and

Croatia (89 %) had the worst. The worst of them – Greece lacked 18 % to fulfil the EU headline target.

The results range from 109 % which is the highest value to 82 % which is the lowest value. This shows that there were the smallest differences in fulfilment between Member States in comparison with the two previous targets. The average level of fulfilment for the whole EU, given Member States' individual values of this indicator, was 74,7 %.

Table 10: Ranking of Member States based on their fulfilment in the target on employment rate – age group 20-64 in 2019

Member State	EU target (%)	Value of indicator (%)	Fulfilment of the target (%)	Position
Sweden	75	82,1	109	1.
Germany	75	80,6	107	2.
Czech Republic	75	80,3	107	2.
Estonia	75	80,2	107	2.
Netherlands	75	80,1	107	2.
United Kingdom	75	79,3	106	3.
Denmark	75	78,3	104	4.
Lithuania	75	78,2	104	4.
Latvia	75	77,4	103	5.
Finland	75	77,2	103	5.
Malta	75	77,2	103	5.
Austria	75	76,8	102	6.
Slovenia	75	76,4	102	6.
Portugal	75	76,1	101	7.
Cyprus	75	75,7	101	7.
Hungary	75	75,3	100	8.
Ireland	75	75,1	100	8.
Bulgaria	75	75,0	100	8.
Slovakia	75	73,4	98	9.
Poland	75	73,0	97	10.
Luxembourg	75	72,8	97	10.
France	75	71,6	95	11.
Romania	75	70,9	95	11.
Belgium	75	70,5	94	12.
Spain	75	68,0	91	13.
Croatia	75	66,7	89	14.
Italy	75	63,5	85	15.
Greece	75	61,2	82	16.

Source: Author

The results of second ranking can be seen in the Table 11. The order of Member States in this table differs from the previous one, as a more precise order of Member States was

obtained employing the Point Method. Therefore, there is one position for each Member State, except Finland and Malta which were awarded the same number of points, hence the same position. Sweden received 1000 points as its value of indicator was the highest (82,1 %), followed by Germany (80,6 %) with 982 points and the Czech Republic (80,3 %) with 978 points. Greece scored 745 points because its value of indicator was the lowest (61,2 %), followed by Italy (63,5 %) which received 773 points and Croatia (66,7 %) with 812 points. Based on the point range which is 1000 to 745, it can be concluded that differences in fulfilment of this EU headline target by individual Member States were not so significant as in the two previous targets.

Table 11: Ranking of Member States based on their comparison in the target on employment rate – age group 20-64 in 2019 using the Point Method

Member State	Maximum value of indicator (%)	Value of indicator	Points	Position
Sweden	82,1	82,1	1000	1.
Germany	82,1	80,6	982	2.
Czech Republic	82,1	80,3	978	3.
Estonia	82,1	80,2	977	4.
Netherlands	82,1	80,1	976	5.
United Kingdom	82,1	79,3	966	6.
Denmark	82,1	78,3	954	7.
Lithuania	82,1	78,2	952	8.
Latvia	82,1	77,4	943	9.
Finland	82,1	77,2	940	10.
Malta	82,1	77,2	940	10.
Austria	82,1	76,8	935	11.
Slovenia	82,1	76,4	931	12.
Portugal	82,1	76,1	927	13.
Cyprus	82,1	75,7	922	14.
Hungary	82,1	75,3	917	15.
Ireland	82,1	75,1	915	16.
Bulgaria	82,1	75,0	914	17.
Slovakia	82,1	73,4	894	18.
Poland	82,1	73,0	889	19.
Luxembourg	82,1	72,8	887	20.
France	82,1	71,6	872	21.
Romania	82,1	70,9	864	22.
Belgium	82,1	70,5	859	23.
Spain	82,1	68,0	828	24.
Croatia	82,1	66,7	812	25.
Italy	82,1	63,5	773	26.
Greece	82,1	61,2	745	27.

Source: Author

The results of third ranking are demonstrated in the Table 12. As in the previous indicator, all Member States have improved in meeting this EU headline target in 2019 compared to 2010. The most successful were Malta (↑ 23 %) and Hungary (↑ 20 %). Only five Member States (Germany, the Netherlands, Sweden, Denmark and Cyprus) had already fulfilled the target in 2010 which means that twenty three Member States have managed to reach the target during the period of nine years. The best of them were Malta and Hungary, on the contrary, the worst was Greece that deteriorated by 3 %. The Czech Republic improved by 13 % compared with 2010 and belonged to the ten best performing Member States.

Table 12: Ranking of Member States based on change in fulfilment of the target on employment rate – age group 20-64 in 2019 compared to 2010

Member State	Fulfilment of the target in 2010 (%)	Fulfilment of the target in 2019 (%)	Change (%)	Position
Malta	80	103	↑ 23	1.
Hungary	80	100	↑ 20	2.
Estonia	89	107	↑ 18	3.
Lithuania	86	104	↑ 18	3.
Latvia	86	103	↑ 17	4.
Bulgaria	86	100	↑ 14	5.
Czech Republic	94	107	↑ 13	6.
Ireland	87	100	↑ 13	6.
Slovakia	86	98	↑ 12	7.
Poland	86	97	↑ 11	8.
Romania	86	95	↑ 9	9.
Slovenia	94	102	↑ 8	10.
United Kingdom	98	106	↑ 8	10.
Germany	100	107	↑ 7	11.
Portugal	94	101	↑ 7	11.
Spain	84	91	↑ 7	11.
Croatia	83	89	↑ 6	12.
Finland	97	103	↑ 6	12.
Netherlands	102	107	↑ 5	13.
Sweden	104	109	↑ 5	13.
Belgium	90	94	↑ 4	14.
Denmark	100	104	↑ 4	14.
Italy	81	85	↑ 4	14.
Austria	99	102	↑ 3	15.
France	92	95	↑ 3	15.
Luxembourg	94	97	↑ 3	15.
Cyprus	100	101	↑ 1	16.
Greece	85	82	↓ 3	17.

Source: Author

4.4 Additional rankings

The results of first additional ranking are demonstrated in the Table 13. It can be observed that Lithuania (895 points), Ireland (815 points) and Croatia (792 points) belonged to the Member States which were the best performers in meeting all the three EU headline targets in 2019 based on their average points. Italy (488 points), Romania (500 points) and Bulgaria (561 points), by contrast, performed the worst.

Table 13: Ranking of Member States based on the average number of points within all three indicators

Member State	Average number of points	Position
Lithuania	895	1.
Ireland	815	2.
Croatia	792	3.
Sweden	785	4.
Slovenia	782	5.
Luxembourg	753	6.
Poland	753	6.
Netherlands	750	7.
Cyprus	749	8.
Greece	737	9.
Finland	718	10.
Denmark	697	11.
United Kingdom	697	11.
Estonia	690	12.
Latvia	688	13.
France	682	14.
Austria	680	15.
Czech Republic	677	16.
Belgium	675	17.
Slovakia	646	18.
Germany	626	19.
Portugal	609	20.
Malta	588	21.
Spain	587	22.
Hungary	580	23.
Bulgaria	561	24.
Romania	500	25.
Italy	488	26.

Source: Author

The results of second additional ranking are listed in the Table 14. Based on the table, Latvia made the most progress in a number of fulfilled EU headline targets in 2019 compared to 2010. More precisely, it had met none of EU headline targets mentioned

above in 2010 and at the end of 2019, it reached all the three. Member States such as Italy and Romania failed to attain any of these three targets in 2010 as well as in 2019. Only Sweden, which had already achieved all three targets in 2010, maintained its position in 2019. Most Member States (Austria, Estonia, Finland, Ireland, Lithuania, Slovakia and Slovenia) progressed from one to three fulfilled EU headline targets.

Table 14: Ranking of Member States based on the number of fulfilled targets in 2019 compared to 2010

Progress	Member State
from 0 to 0	Italy
from 0 to 1	Romania Bulgaria Hungary Malta Portugal
from 0 to 2	Greece
from 0 to 3	Latvia
from 1 to 1	Croatia Germany Spain
from 1 to 2	Belgium Czech Republic France Poland
from 1 to 3	United Kingdom Austria Estonia Finland Ireland Lithuania Slovakia Slovenia
from 2 to 2	Luxembourg
from 2 to 3	Cyprus Denmark
from 3 to 3	Netherlands Sweden

Source: Author

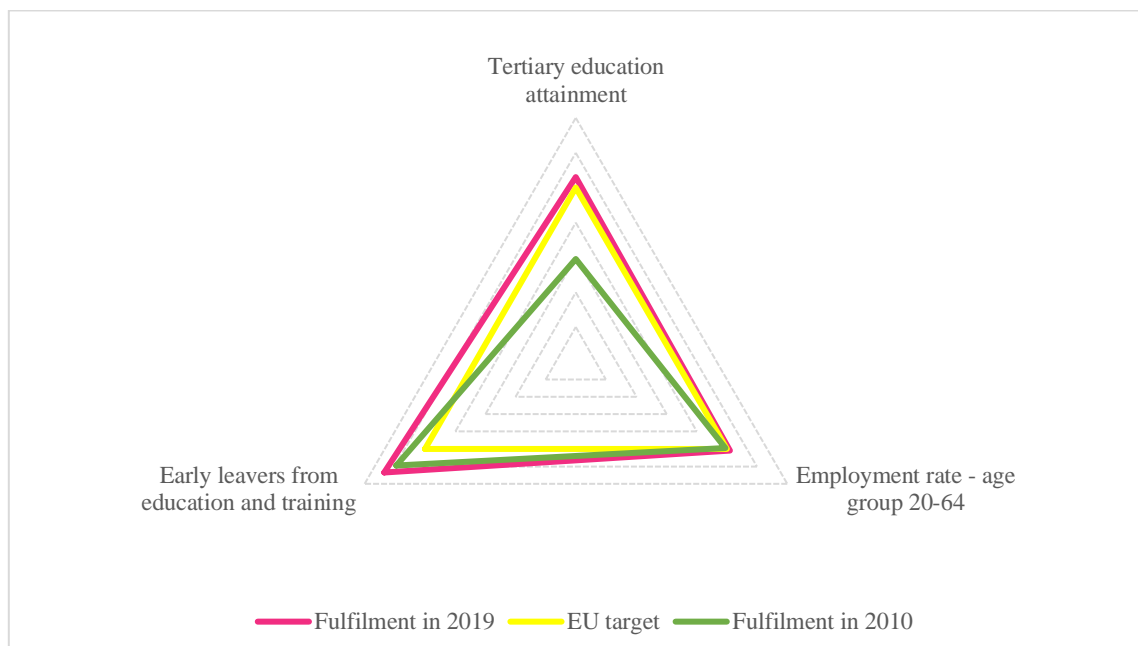
4.5 Results of individual Member States

This subchapter presents the concrete results of individual Member States using radar charts. The charts show how far a Member State was from the EU targets as a percentage of their fulfilment by comparing the EU target (yellow line) having the value of 100 %, the Member State's situation in 2010 (green line) and the most recent situation (pink line). The distance between the pink line and the yellow line of a particular indicator shows how far a Member State was from the EU target. Data points on or outside the yellow line indicate that the Member State fulfilled or exceeded this target, while those inside mean that it still had some way to go. A comparison of a Member State's latest performance with the green line shows whether it moved closer to or further away from the EU targets since 2010.

4.5.1 Austria

In 2019, Austria exceeded all three EU targets. It performed best in early leavers from education and training where its level of fulfilment was 27 % higher. Concerning two targets, its fulfilment of the tertiary education attainment target was higher by 6 % and the employment rate target by only 2 %. In comparison with 2010, Austria made progress in all three EU targets, most notably in tertiary education attainment, i.e. 47 %.

Graph 1: Change since 2010 in relation to EU targets in Austria

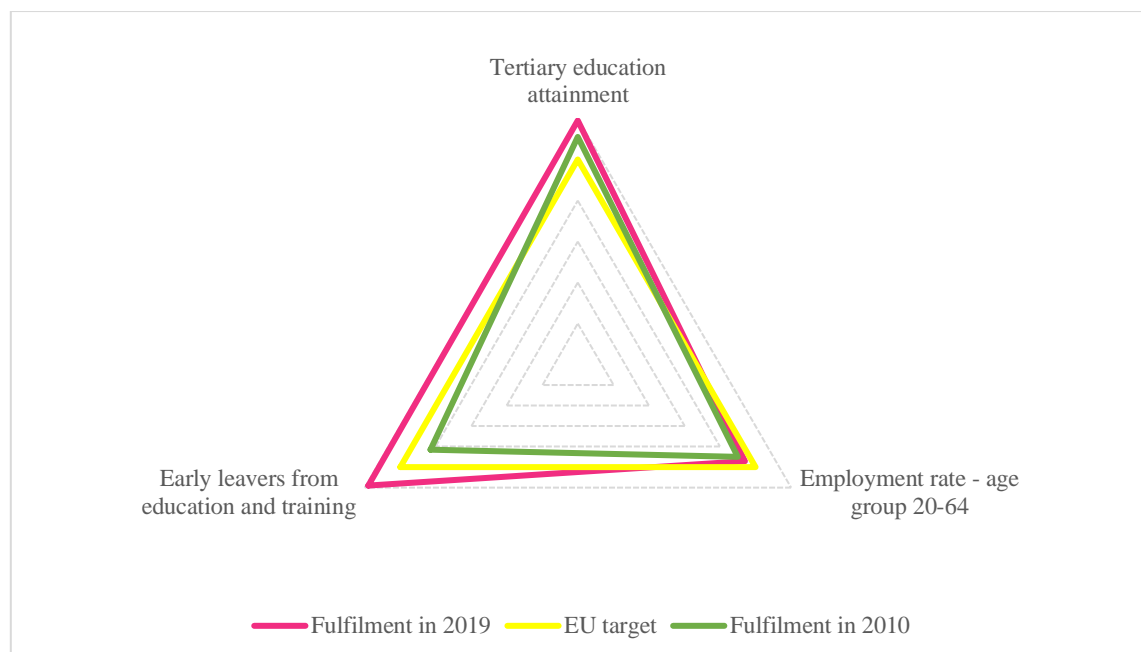


Source: Author

4.5.2 Belgium

Belgium surpassed the early leavers from education and training target by 18 % and the tertiary education attainment target by 19 % in 2019. It failed when fulfilling the employment rate target as it lacked 6 % to achieve it. Compared to 2010, Belgium improved its position in all three EU targets but mostly in the early leavers from education and training and training target, i.e. by 35 %.

Graph 2: Change since 2010 in relation to EU targets in Belgium

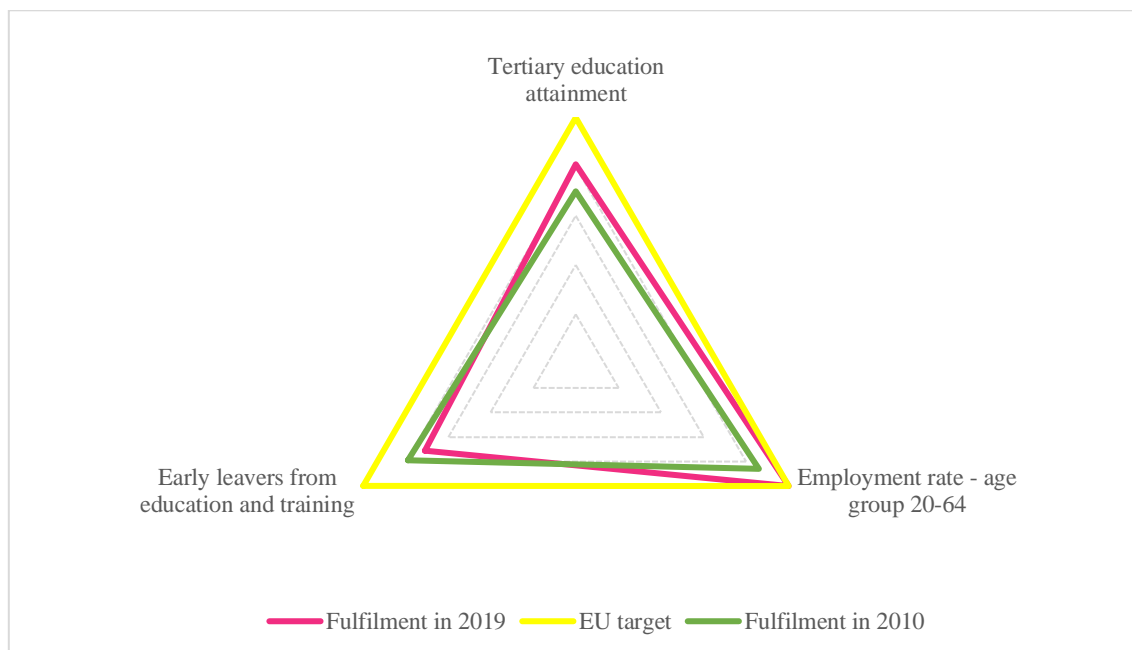


Source: Author

4.5.3 Bulgaria

In 2019, Bulgaria was successful in fulfilment of only employment rate target with the result of 100 %. Regarding the rest targets, it lacked 29 % to accomplish the early leavers from education and training target and 19 % to achieve the tertiary education attainment target. Compared to 2010, however, it progressed in the target on tertiary education attainment as well as in the target on employment rate. On the contrary, it deteriorated in the early leavers from education and training target by 8 %.

Graph 3: Change since 2010 in relation to EU targets in Bulgaria

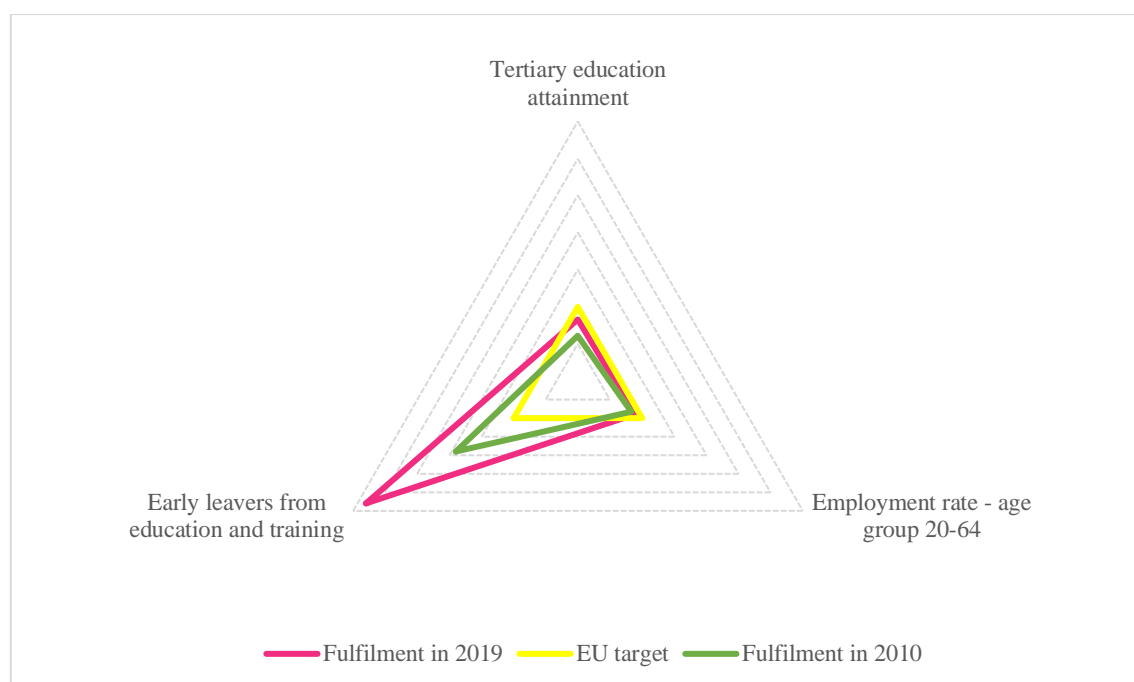


Source: Author

4.5.4 Croatia

Croatia surpassed the target on early leavers from education and training by 230 % and did not manage to meet neither the tertiary education attainment target nor the employment rate target as it lacked 17 % and 11 % to attain them in 2019. On the other hand, in comparison with 2010, it became better in fulfilment of all three EU targets but most in the early leavers from education and training target, i.e. by 140 %.

Graph 4: Change since 2010 in relation to EU targets in Croatia

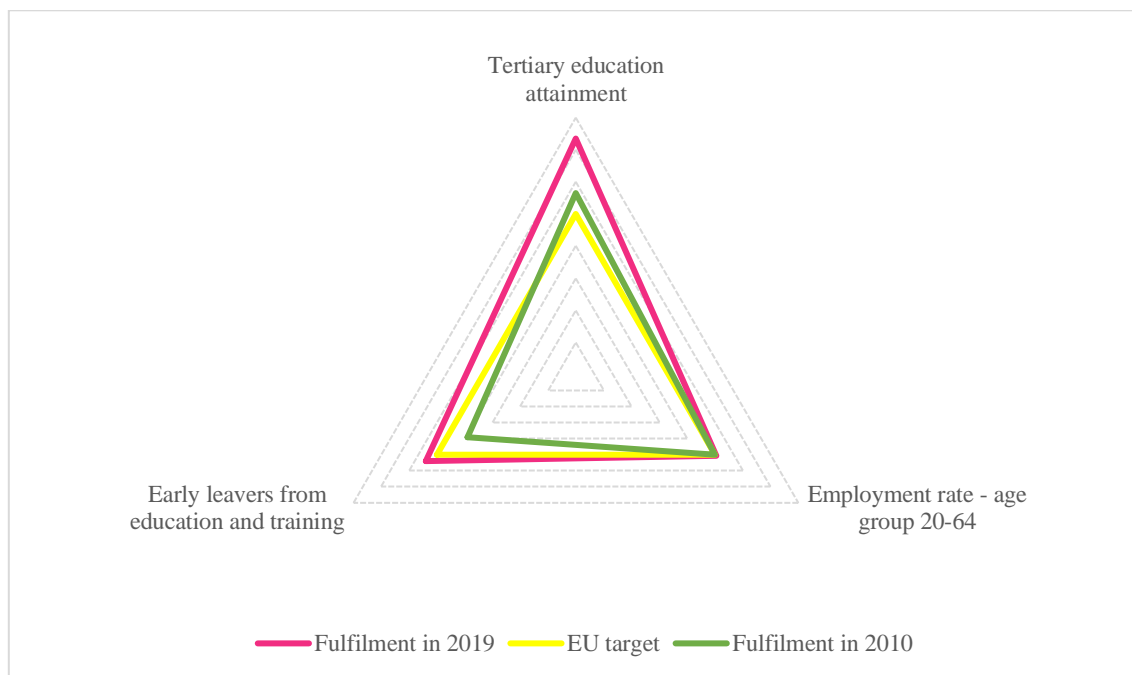


Source: Author

4.5.5 Cyprus

In 2019, Cyprus surpassed all three EU targets. As for the tertiary education attainment target, in which Cyprus performed best, it succeeded in exceeding this target by 47 %. The target on early leavers from education and training surpassed by 8 % and the target on employment rate by only 1 %. When compared to 2010, Cyprus made progress in all three EU targets, nevertheless, the greatest is visible in the tertiary education attainment target, i.e. 34 %.

Graph 5: Change since 2010 in relation to EU targets in Cyprus

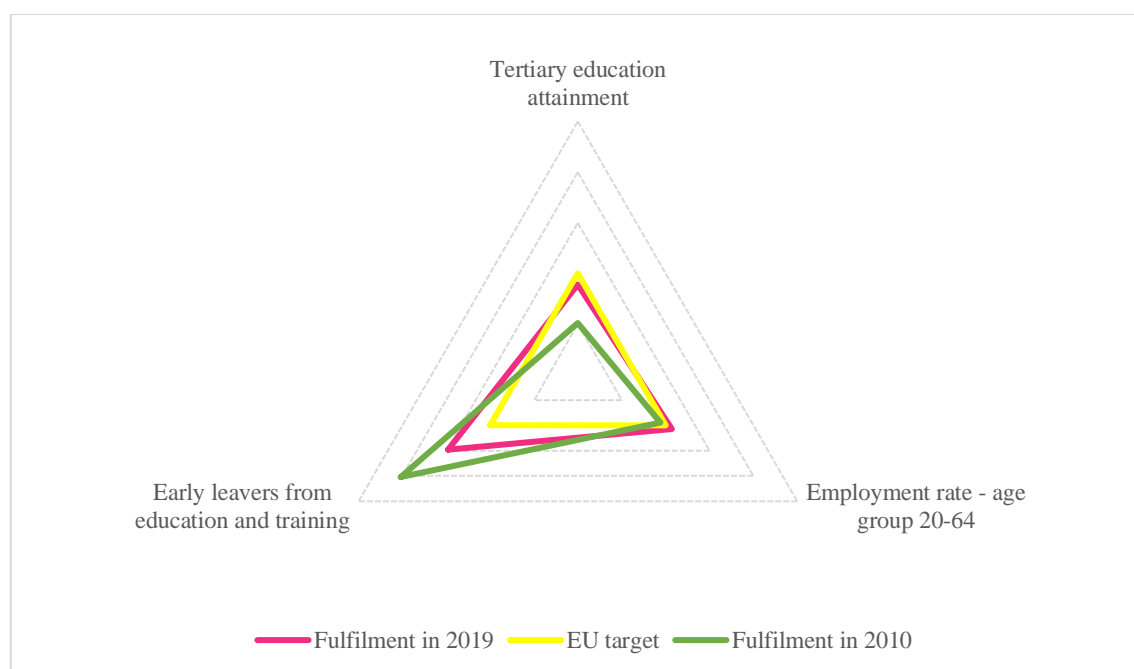


Source: Author

4.5.6 Czech Republic

The Czech Republic exceeded two EU targets in 2019, namely the early leavers from education and training by 48 % and the employment rate by 7 %. Regarding the target on tertiary education attainment, it needed 11 % to reach this target. Taking into account the year 2010, the Czech Republic improved in the tertiary education attainment target by 38 % and deteriorated in the early leavers from education and training target by 54 %.

Graph 6: Change since 2010 in relation to EU targets in the Czech Republic

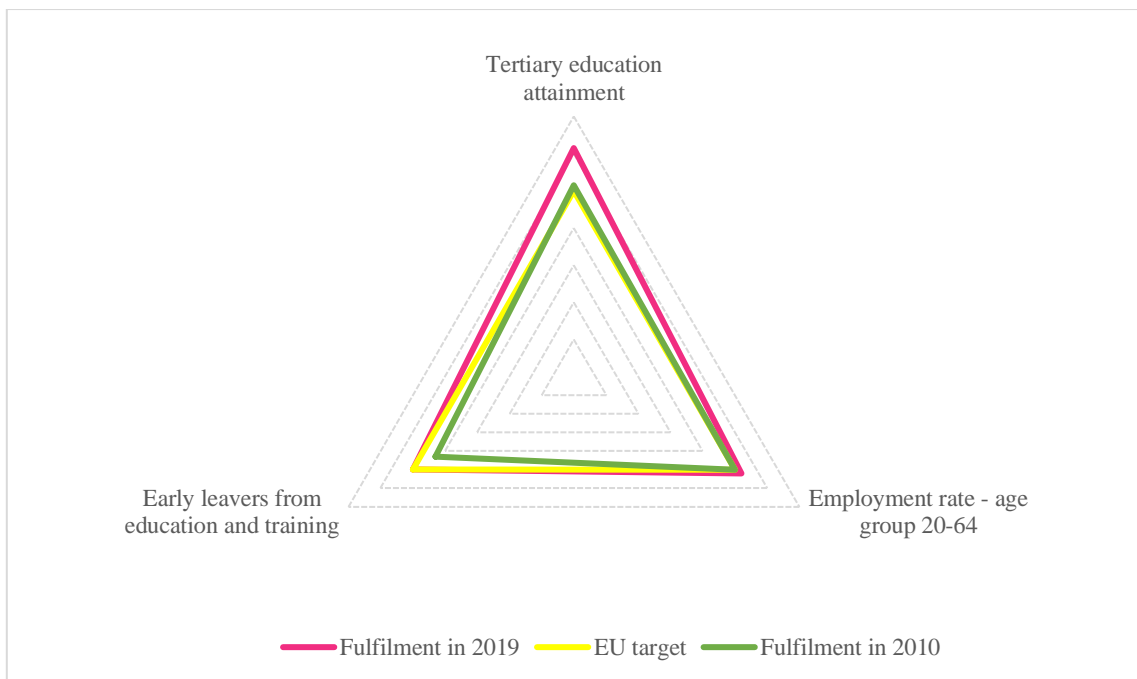


Source: Author

4.5.7 Denmark

In 2019, Denmark surpassed two EU targets. It performed best in the tertiary education attainment target where its level of fulfilment was 23 % higher, followed by the target on employment rate where this level was 4 % higher and finally the target on early leavers from education and training with the result of 100 %. Compared to 2010, it progressed in all three EU targets, mostly in the tertiary education attainment target, i.e. by 20 %.

Graph 7: Change since 2010 in relation to EU targets in Denmark

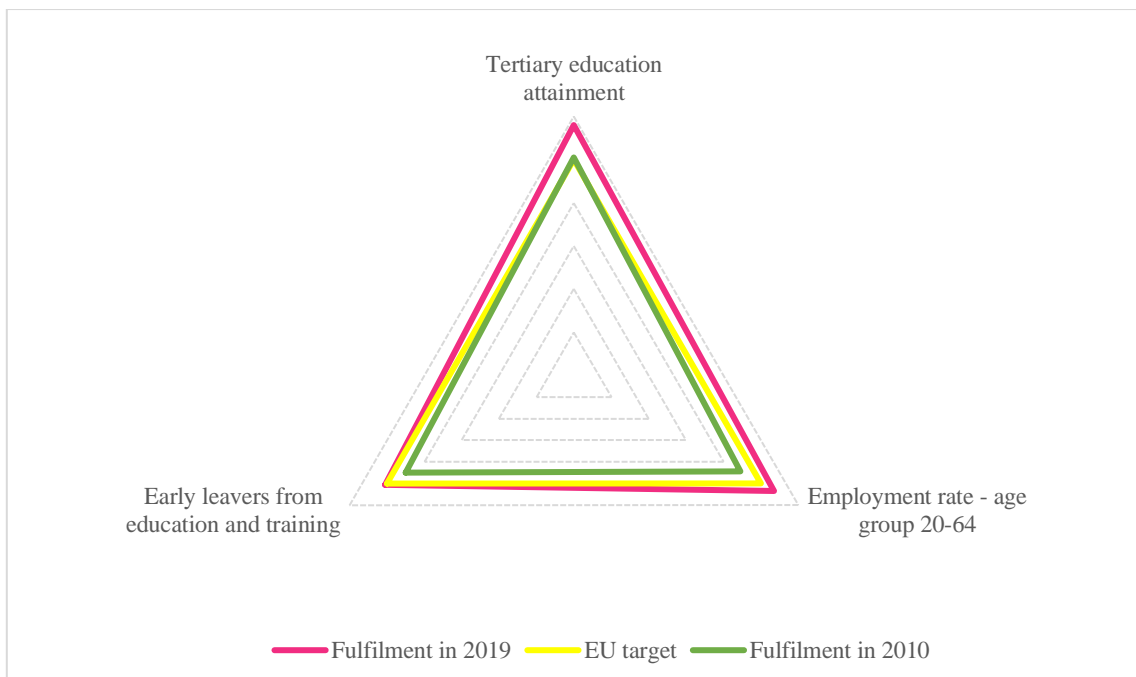


Source: Author

4.5.8 Estonia

Estonia surpassed all three EU targets in 2019. It did best in tertiary education attainment target where the excess reached 16 %. Concerning other two targets, the excess in the employment rate target was 7 % and in the early leavers from education and training target only 1 %. Given the year 2010, it advanced in all three EU targets but most in the employment rate target, i.e. by 18 %.

Graph 8: Change since 2010 in relation to EU targets in Estonia

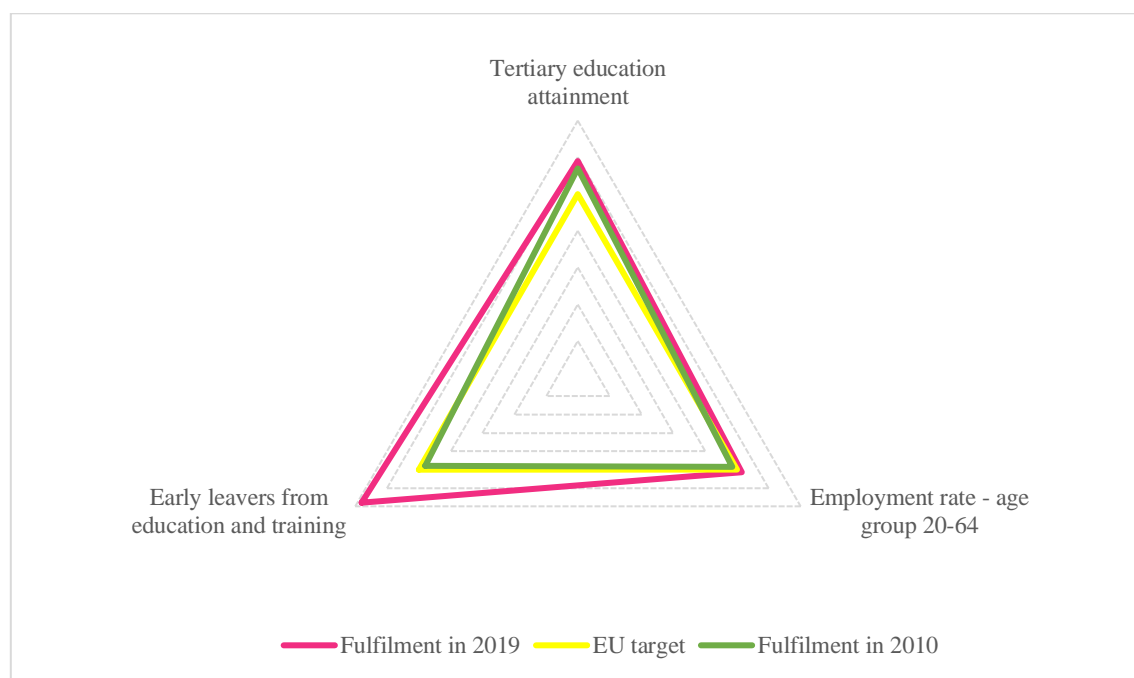


Source: Author

4.5.9 Finland

In 2019, Finland managed to exceed all three EU targets. It did best in the target on early leavers from education and training as it surpassed this target by 36 %. As far as two rest targets are concerned, Finland exceeded the tertiary education attainment target by 18 % and the employment rate target by only 3 %. In comparison to 2010, it made progress in all three EU targets, nevertheless, the greatest is visible in the early leavers from education and training target, i.e. 40 %.

Graph 9: Change since 2010 in relation to EU targets in Finland

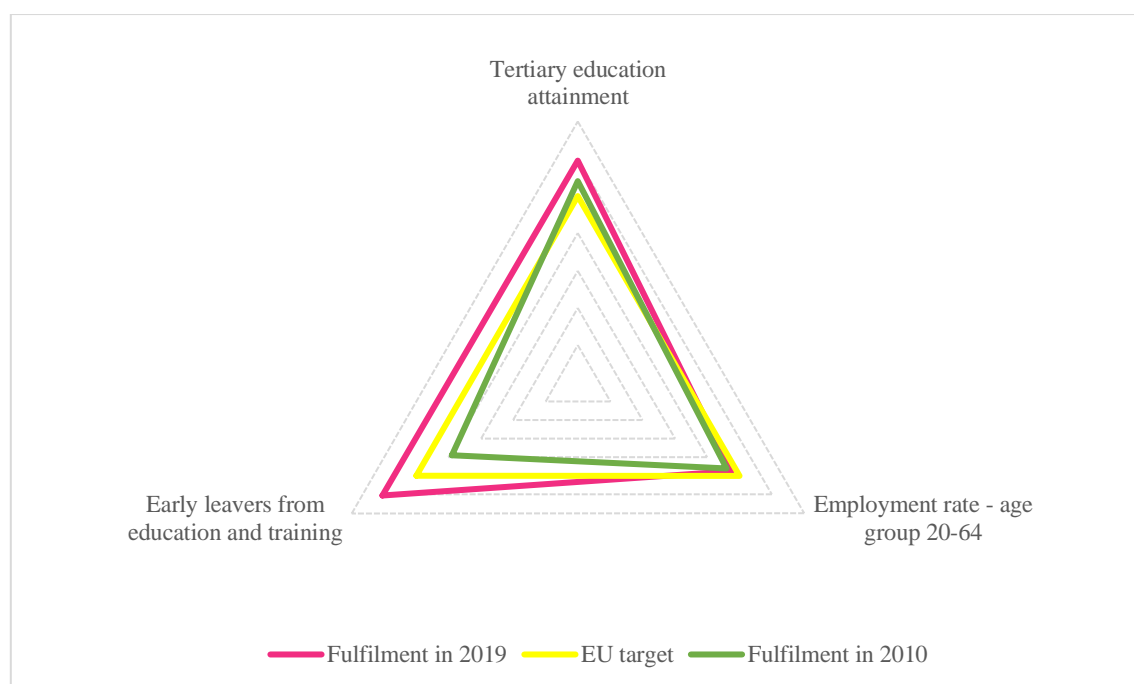


Source: Author

4.5.10 France

France surpassed the early leavers from education and training target by 21 % as well as the tertiary education attainment target by 19 % in 2019. By contrast, it lacked only 5 % to accomplish the employment rate target in the same year. Taking into account the year 2010, France improved its position in all three EU targets, primarily in the early leavers from education and training target, i.e. by 43 %.

Graph 10: Change since 2010 in relation to EU targets in France

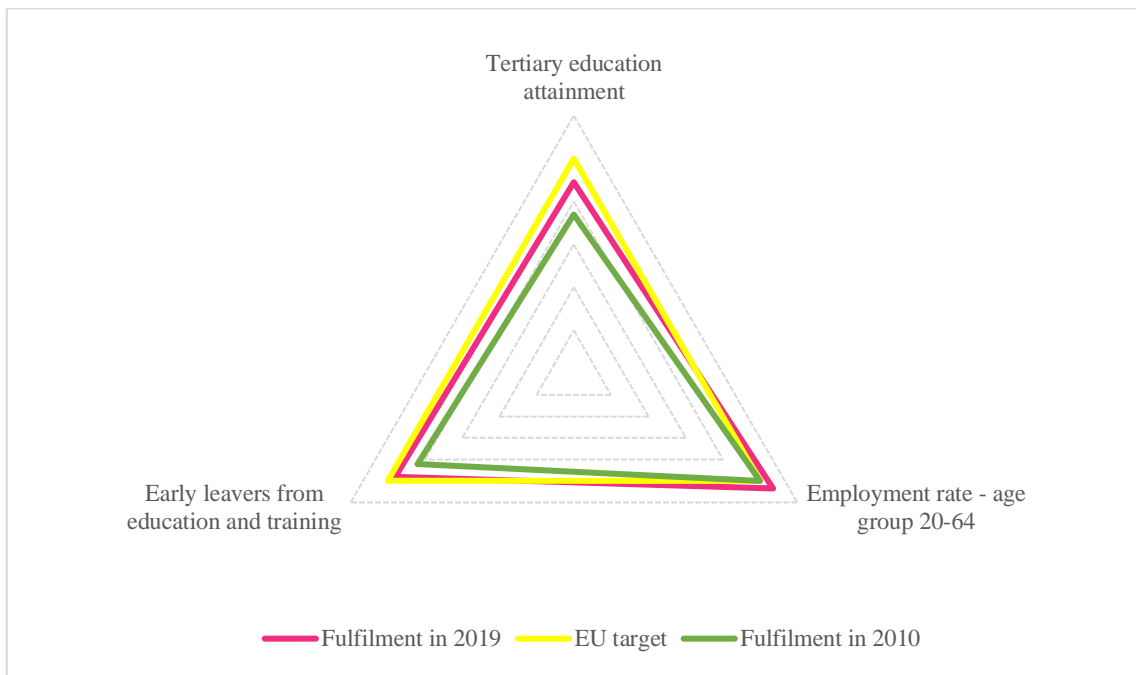


Source: Author

4.5.11 Germany

In 2019, Germany was successful in achieving only one EU target, namely the employment rate which exceeded by 7 %. Concerning other two targets, it needed 11 % in order to accomplish the target on tertiary education attainment and only 4 % to fulfil the target on early leavers from education and training. Nevertheless, it made progress in comparison to 2010, the greatest is visible in the target on education attainment, i.e. 15 %.

Graph 11: Change since 2010 in relation to EU targets in Germany

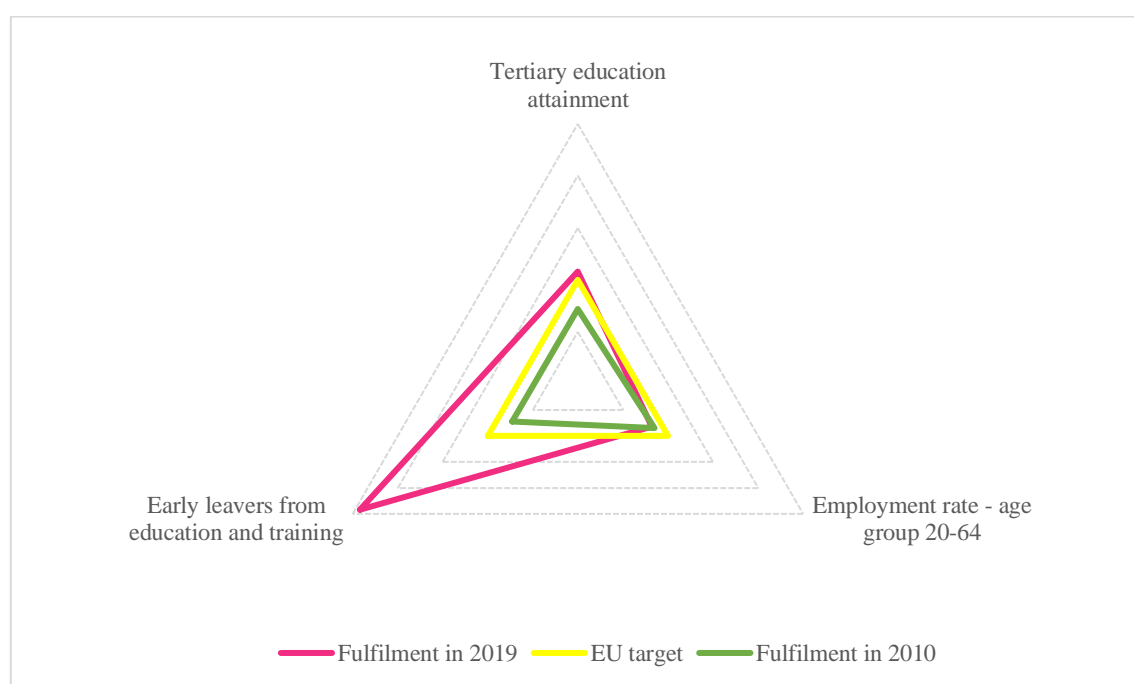


Source: Author

4.5.12 Greece

Greece managed to surpass two EU targets in 2019. It performed best in the early leavers from education and training target since it exceeded this target by 142 %. The level of fulfilment of the tertiary education attainment target was higher by 8 %. It did not reach the employment rate target because it lacked 18 %. When compared to 2010, Greece progressed in the target on early leavers from education and training as well as in the tertiary education attainment target. On the contrary, it deteriorated by 3 % in the employment rate target.

Graph 12: Change since 2010 in relation to EU targets in Greece

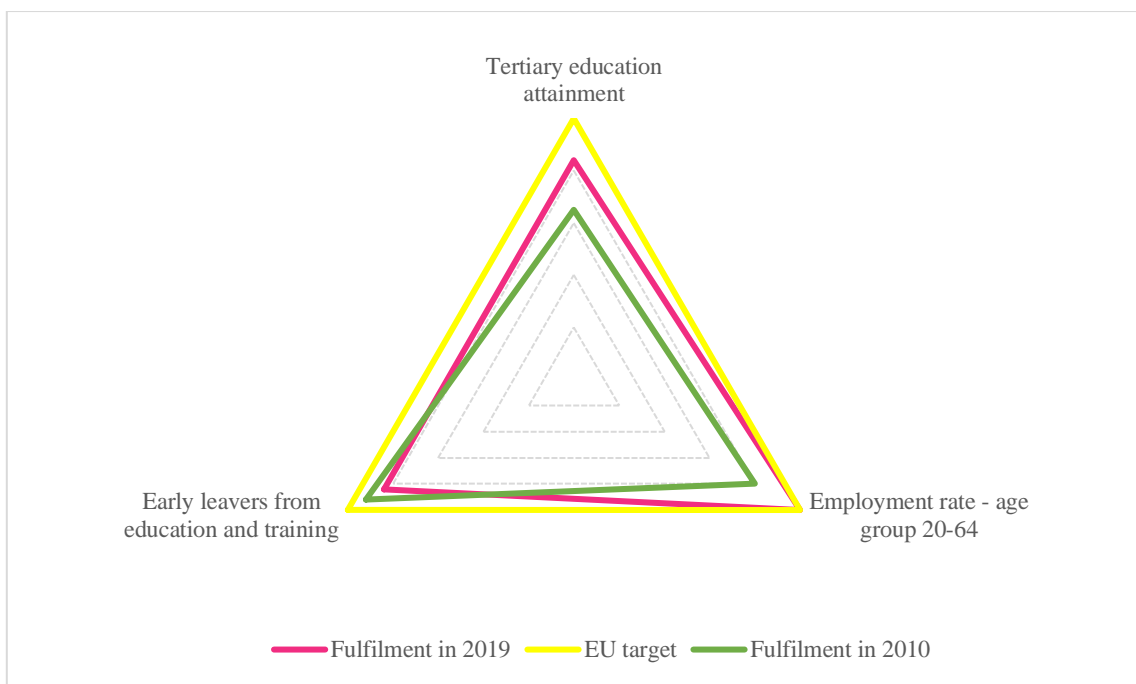


Source: Author

4.5.13 Hungary

In 2019, Hungary fulfilled only the target on employment rate with the result of 100 % and failed in other two targets where, in both cases, it needed 16 % to accomplish them. Given the year 2010, Hungary became better in the tertiary education attainment target and the employment rate target. On the other hand, it deteriorated by 8 % in the target on early leavers from education and training.

Graph 13: Change since 2010 in relation to EU targets in Hungary

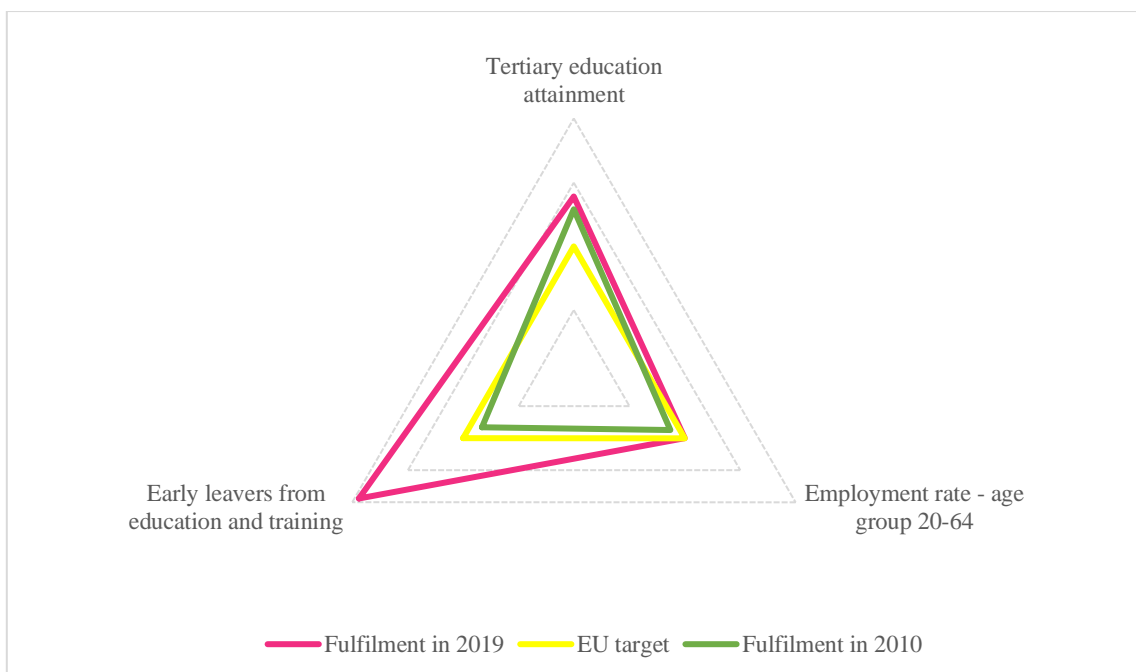


Source: Author

4.5.14 Ireland

Ireland exceeded all three EU targets in 2019. As for the early leavers from education and training target, in which Ireland performed best, it succeeded in surpassing this target by 94 %. The target on tertiary education attainment exceeded by 39 % and the target on employment rate reached 100 %. Compared to 2010, it advanced in all three EU targets but mainly in the early leavers from education and training target, i.e. by 111 %.

Graph 14: Change since 2010 in relation to EU targets in Ireland

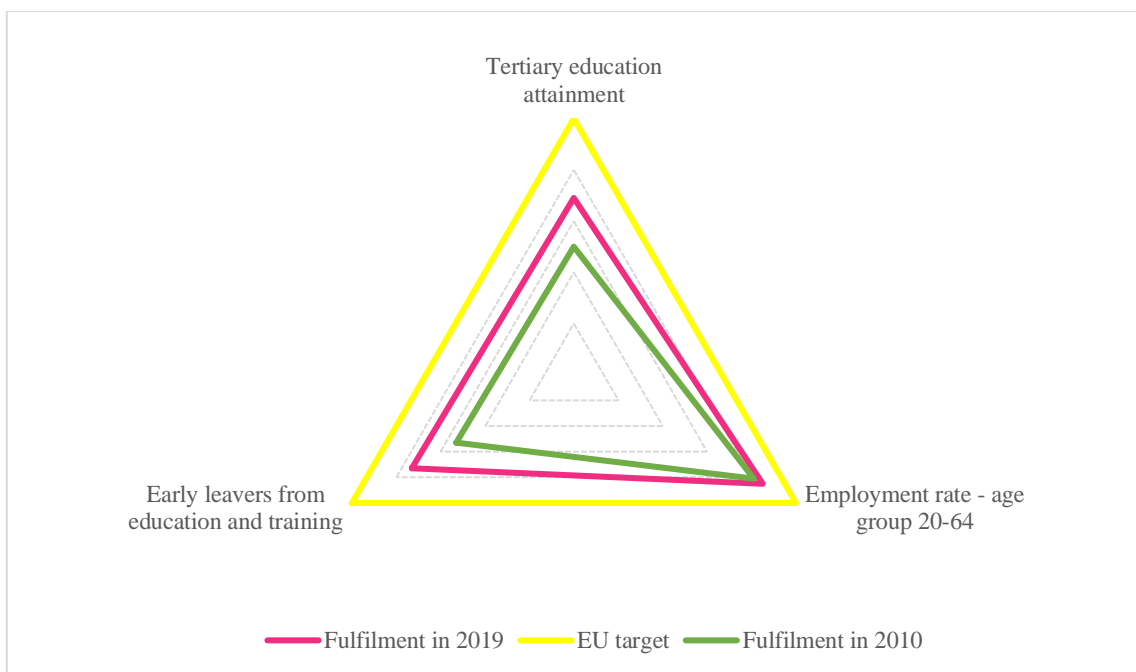


Source: Author

4.5.15 Italy

In 2019, Italy did not manage to fulfil any of these three EU targets. It lacked 31 % to meet the tertiary education attainment target, 27 % to achieve the early leavers from education and training target and 15 % to reach the employment rate target. In comparison with 2010, it made progress in all three EU targets, most notably in the target on early leavers from education and training, i.e. 20 %.

Graph 15: Change since 2010 in relation to EU targets in Italy

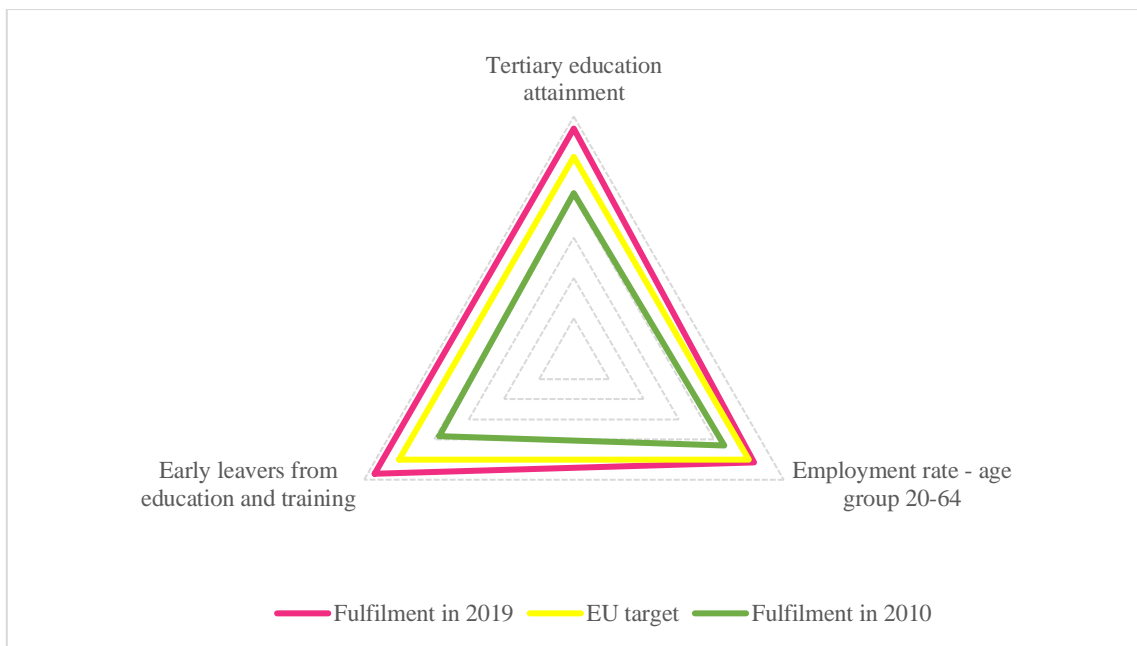


Source: Author

4.5.16 Latvia

Latvia surpassed all three EU targets in 2019. It did best in both tertiary education attainment target and early leavers from education and training target where the excess reached 14 %. Concerning the rest target, the excess in the employment rate target was only 3 %. Taking into account the year 2010, Latvia progressed in all three EU targets but mostly in the target on early leavers from education and training, i.e. by 37 %.

Graph 16: Change since 2010 in relation to EU targets in Latvia

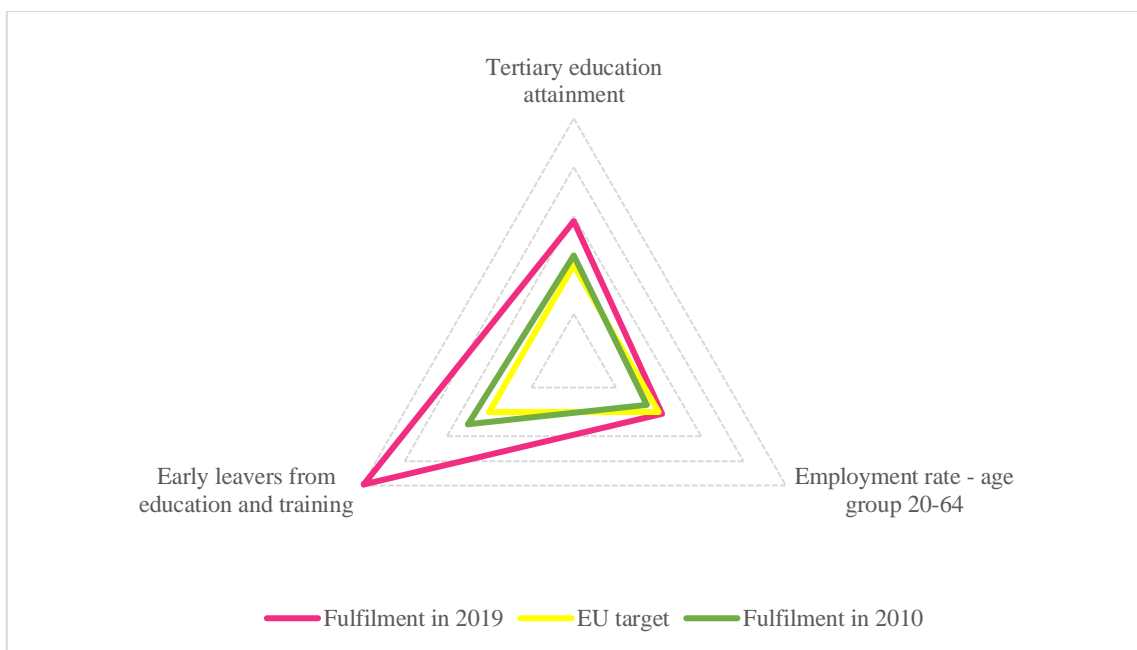


Source: Author

4.5.17 Lithuania

In 2019, Lithuania exceeded all three EU targets. As for the early leavers from education and training target, in which Lithuania performed best, it succeeded in surpassing this target by 148 %. The target on tertiary education attainment was exceeded by 45 % and the target on employment rate by only 4 %. By comparison with 2010, it became better in all three EU targets, especially in the early leavers from education and training target.

Graph 17: Change since 2010 in relation to EU targets in Lithuania

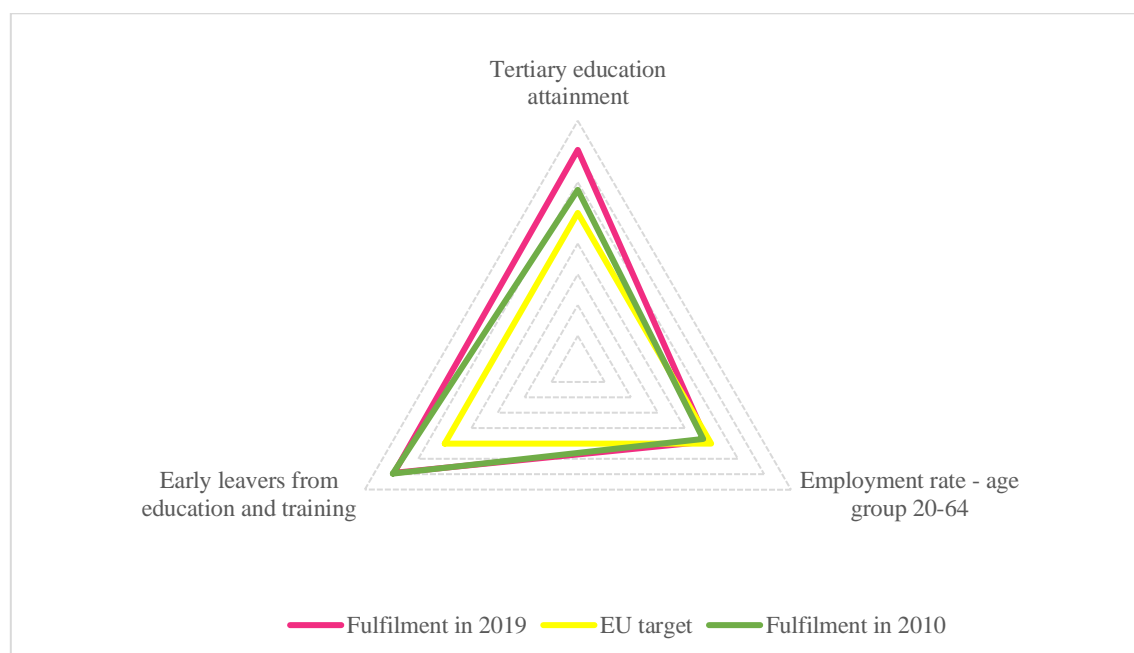


Source: Author

4.5.18 Luxembourg

Luxembourg managed to surpass two EU targets, more precisely the target on tertiary education attainment by 41 % and the target on early leavers from education and training by 38 %. Regarding the target on employment rate, it lacked only 3 % to meet this target. Given the year 2010, Luxembourg made progress in the target on tertiary education attainment as well as in the target on employment rate. By contrast, it deteriorated but by only 1 % in the target on early leavers from education and training.

Graph 18: Change since 2010 in relation to EU targets in Luxembourg

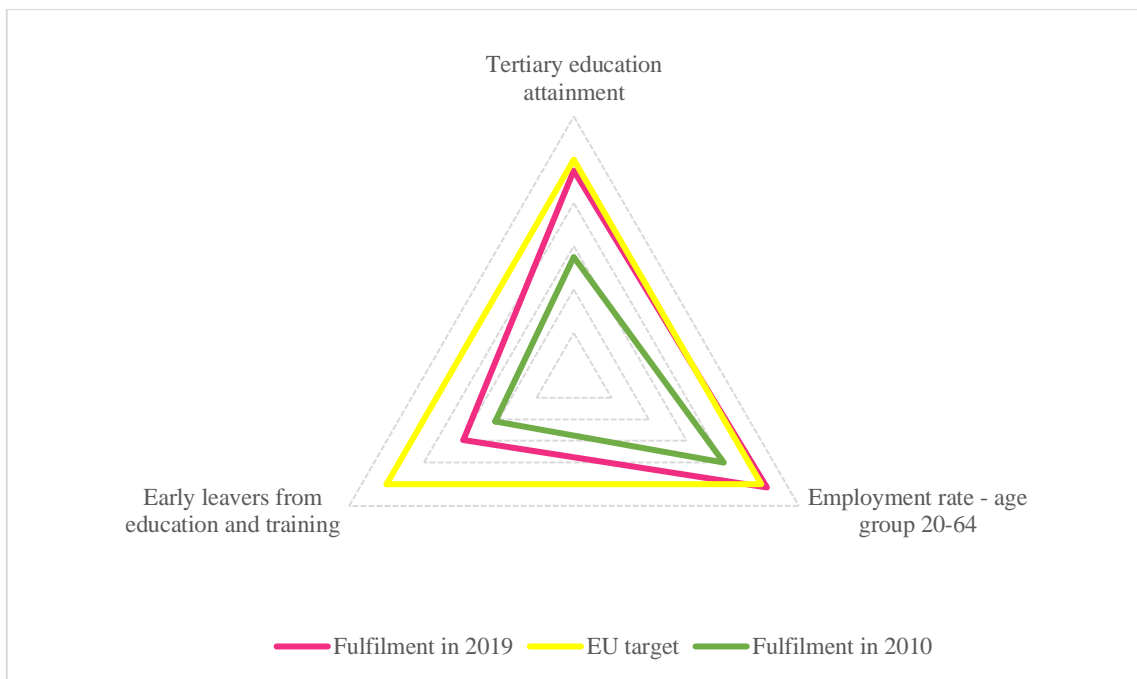


Source: Author

4.5.19 Malta

In 2019, Malta exceeded only the employment rate target by 3 % and failed in other two targets where it needed 41 % to achieve the early leavers from education and training target and 5 % to accomplish the tertiary education attainment target. Given the year 2010, Malta became better in all three EU targets, mostly in the tertiary education attainment target, i.e. by 40 %.

Graph 19: Change since 2010 in relation to EU targets in Malta

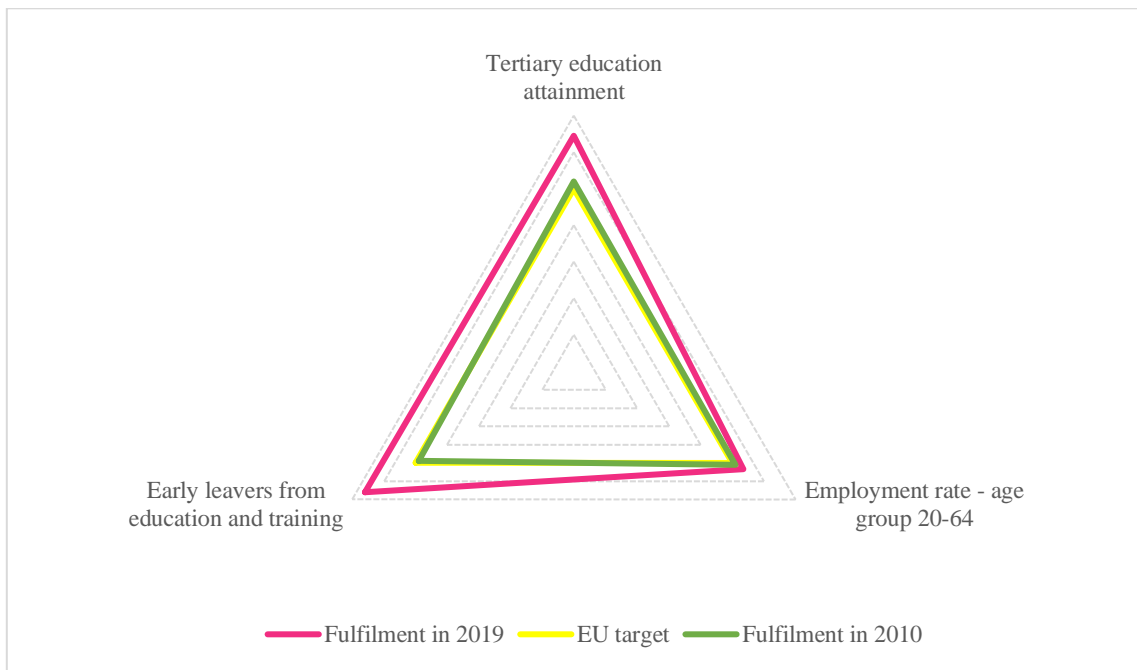


Source: Author

4.5.20 Netherlands

The Netherlands surpassed all three EU targets in 2019. It performed best in the target on early leavers from education and training where its level of fulfilment was 32 % higher, followed by the target on tertiary education attainment where this level was 29 % higher and finally the target on employment rate where the excess was 7 %. Compared to 2010, it progressed in all three EU targets but most in the target on early leavers from education and training, i.e. by 34 %.

Graph 20: Change since 2010 in relation to EU targets in the Netherlands

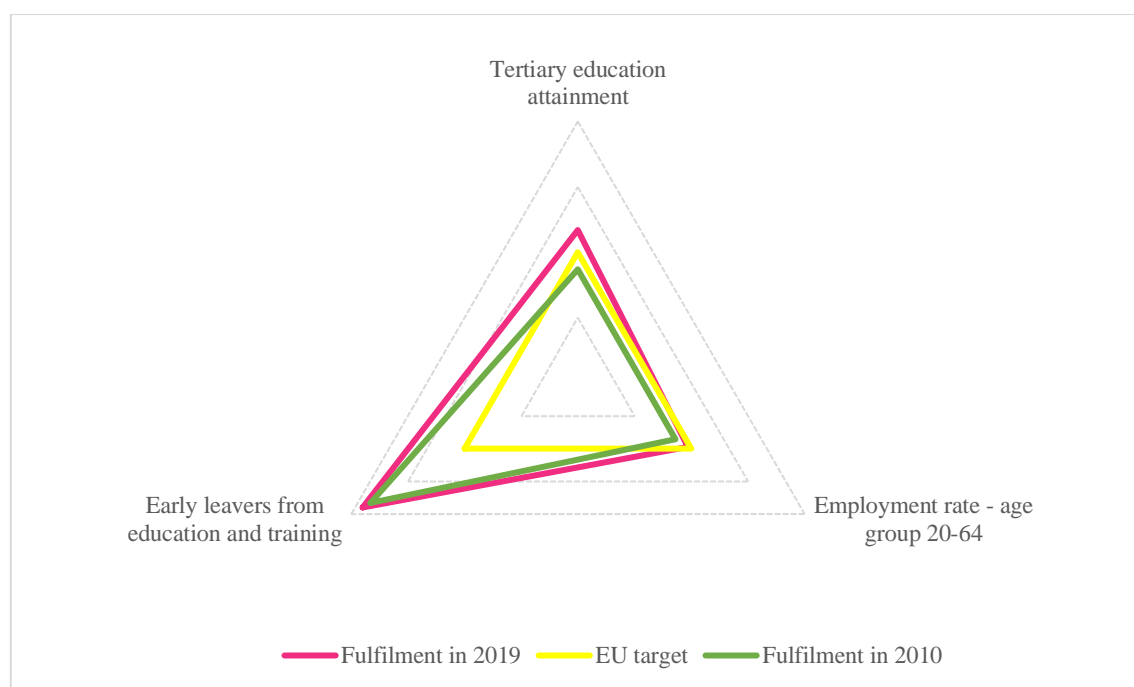


Source: Author

4.5.21 Poland

In 2019, Poland exceeded two EU targets, namely the early leavers from education and training target by 90 % and the tertiary education attainment target by 17 %. Regarding the target on employment rate, it lacked only 3 % to reach this target. Taking into account the year 2010, Poland improved in all three EU targets, most notably in the target on tertiary education attainment, i.e. by 30 %.

Graph 21: Change since 2010 in relation to EU targets in Poland

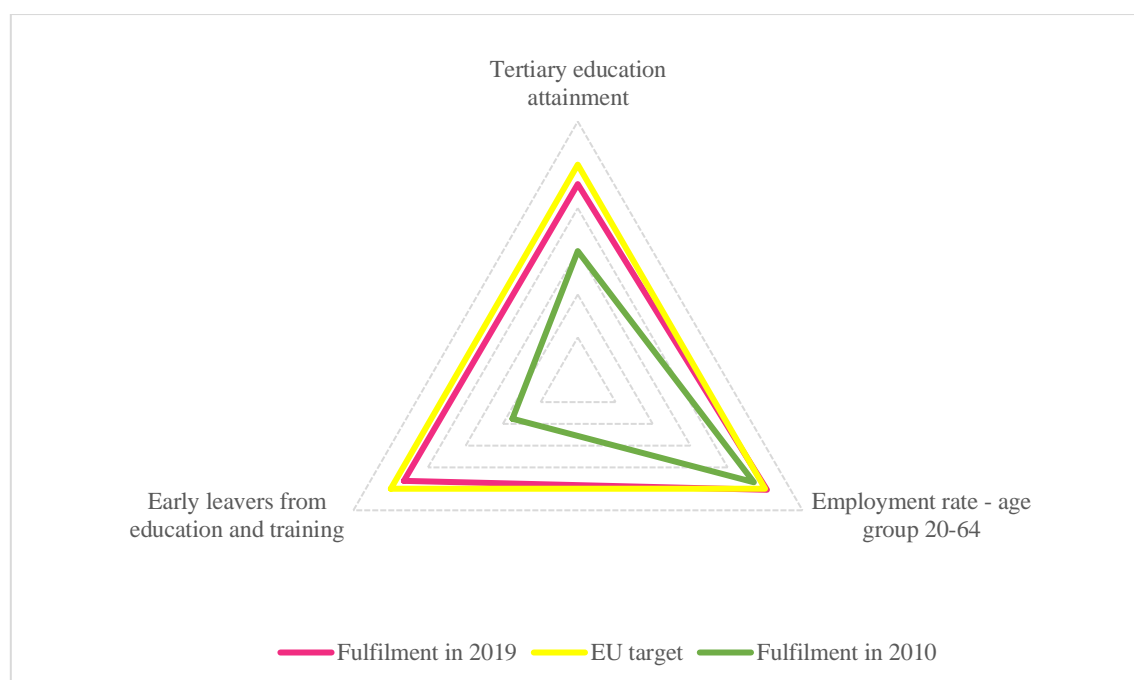


Source: Author

4.5.22 Portugal

Portugal surpassed the target on employment rate but by only 1 % and did not manage to meet neither the tertiary education attainment target nor the early leavers from education and training target as it lacked 9 % and 7 % to attain them in 2019. On the other hand, in comparison with 2010, it became better in fulfilment of all three EU targets but most in the early leavers from education and training target, i.e. by 58 %.

Graph 22: Change since 2010 in relation to EU targets in Portugal

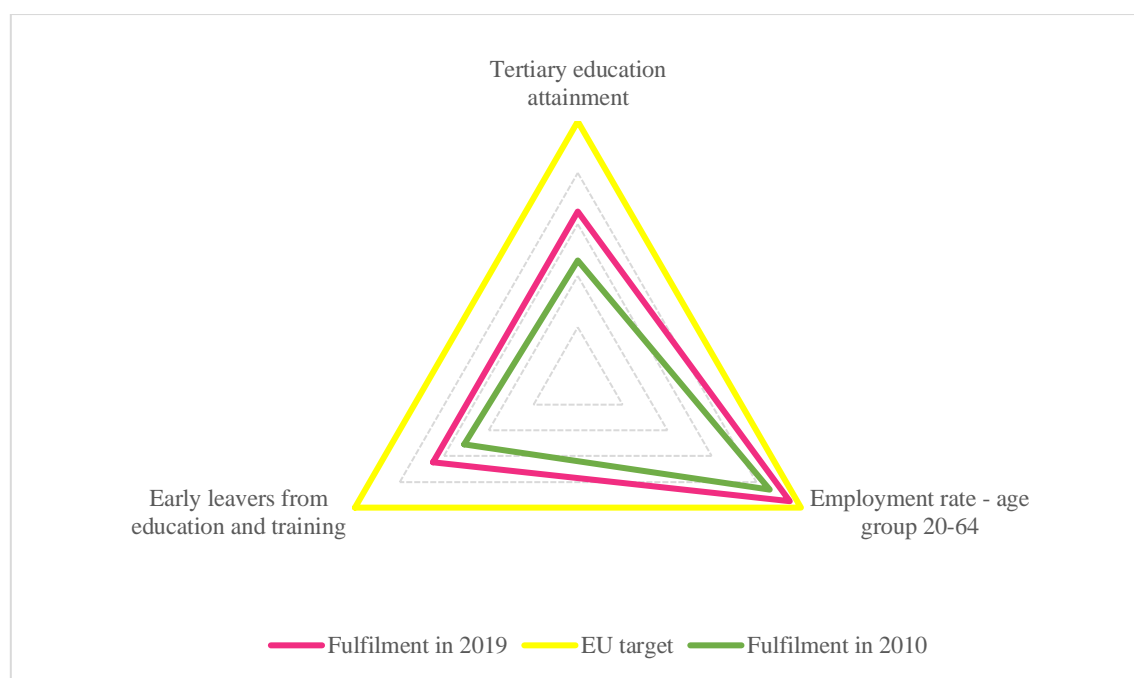


Source: Author

4.5.23 Romania

In 2019, Romania did not manage to fulfil any of these three EU targets. It lacked 35 % to meet both the tertiary education attainment target and the early leavers from education and training target. Concerning the employment rate target, it needed only 5 % to reach this target. In comparison with 2010, Romania made progress in all three EU targets, especially in the tertiary education attainment target, i.e. 19 %.

Graph 23: Change since 2010 in relation to EU targets in Romania

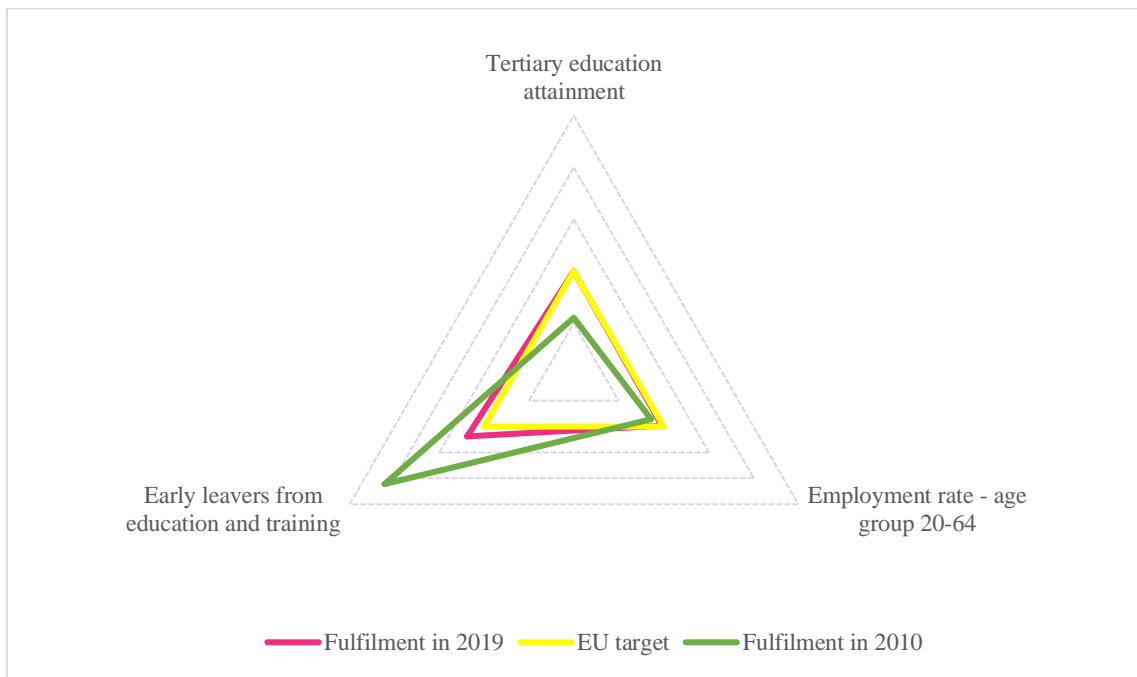


Source: Author

4.5.24 Slovakia

Slovakia surpassed the early leavers from education and training target by 19 % and fulfilled the tertiary education attainment target at 100 % in 2019. By contrast, it lacked only 2 % to attain the employment rate target in the same year. Taking into account the year 2010, Slovakia improved its position in the tertiary education attainment target as well as in the employment rate target, however, it deteriorated in the early leavers from education and training target by 92 %.

Graph 24: Change since 2010 in relation to EU targets in Slovakia

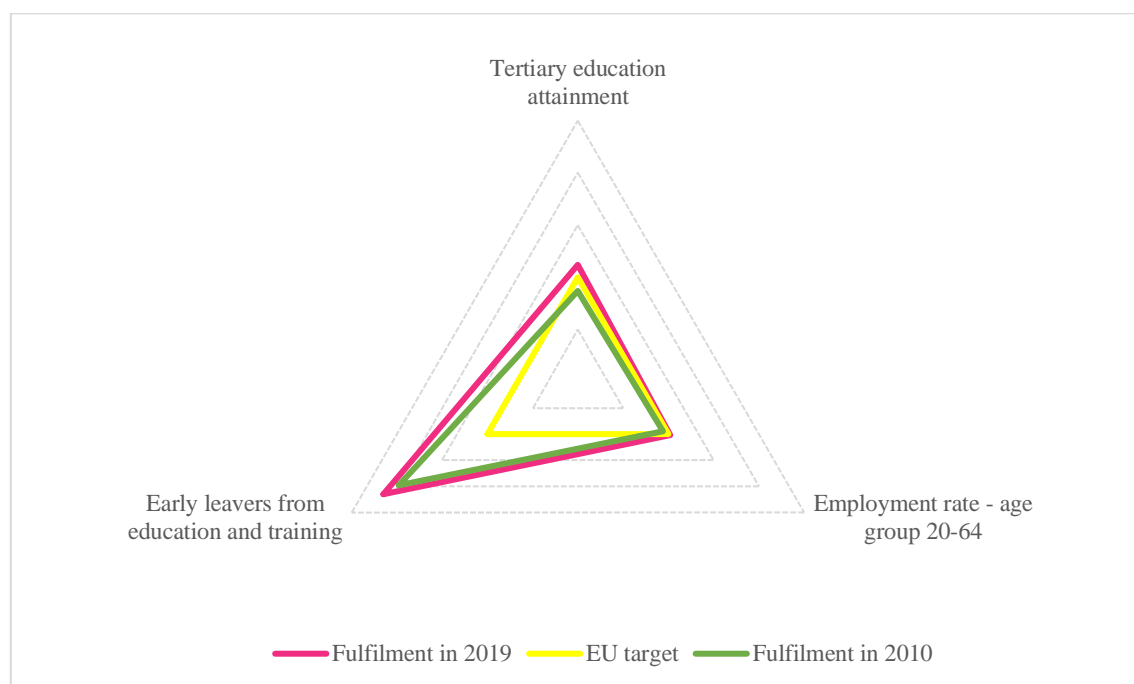


Source: Author

4.5.25 Slovenia

In 2019, Slovenia exceeded all three EU targets. It performed best in the early leavers from education and training target where its level of fulfilment was 115 % higher. Regarding other two targets, its fulfilment of the tertiary education attainment target was higher by 12 % and the employment rate target by only 2 %. In comparison with 2010, Slovenia made progress in all three EU targets, the greatest is visible in the target on tertiary education attainment, i.e. 25 %.

Graph 25: Change since 2010 in relation to EU targets in Slovenia

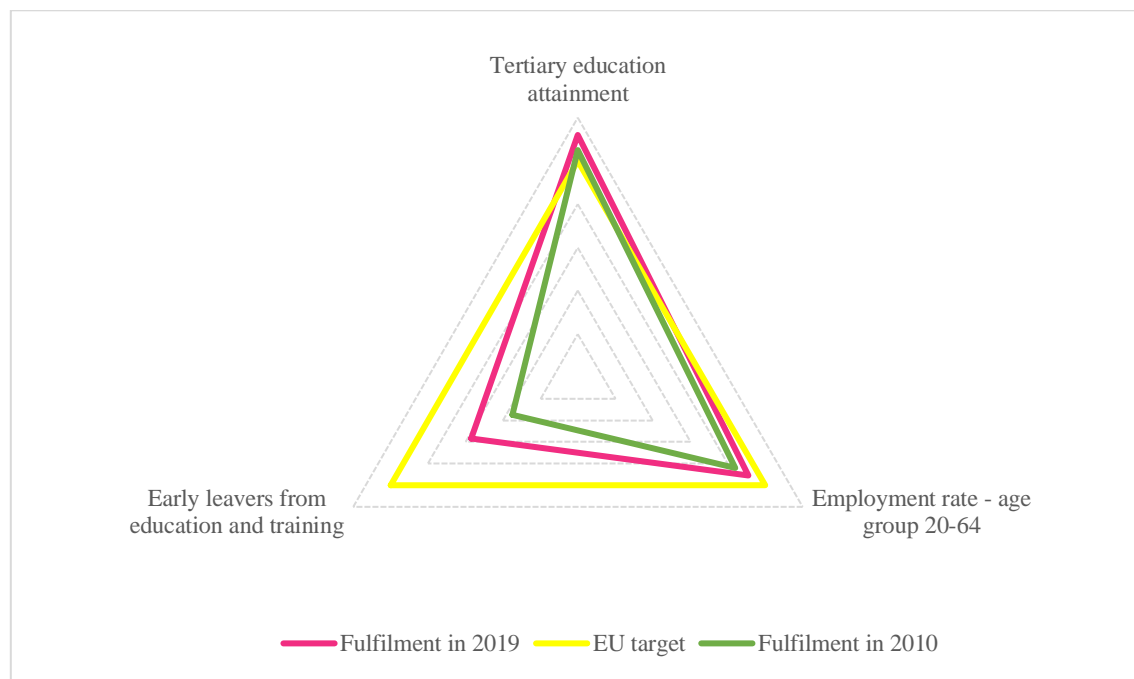


Source: Author

4.5.26 Spain

Spain was successful in achieving only one EU target, namely the tertiary education attainment which surpassed by 12 % in 2019. As far as other two targets are concerned, it needed 43 % in order to accomplish the target on early leavers from education and training and 9 % to fulfil the target on employment rate. Nevertheless, in comparison to 2010, it advanced in all three EU targets, mainly in the target on early leavers from education and training, i.e. by 22 %.

Graph 26: Change since 2010 in relation to EU targets in Spain

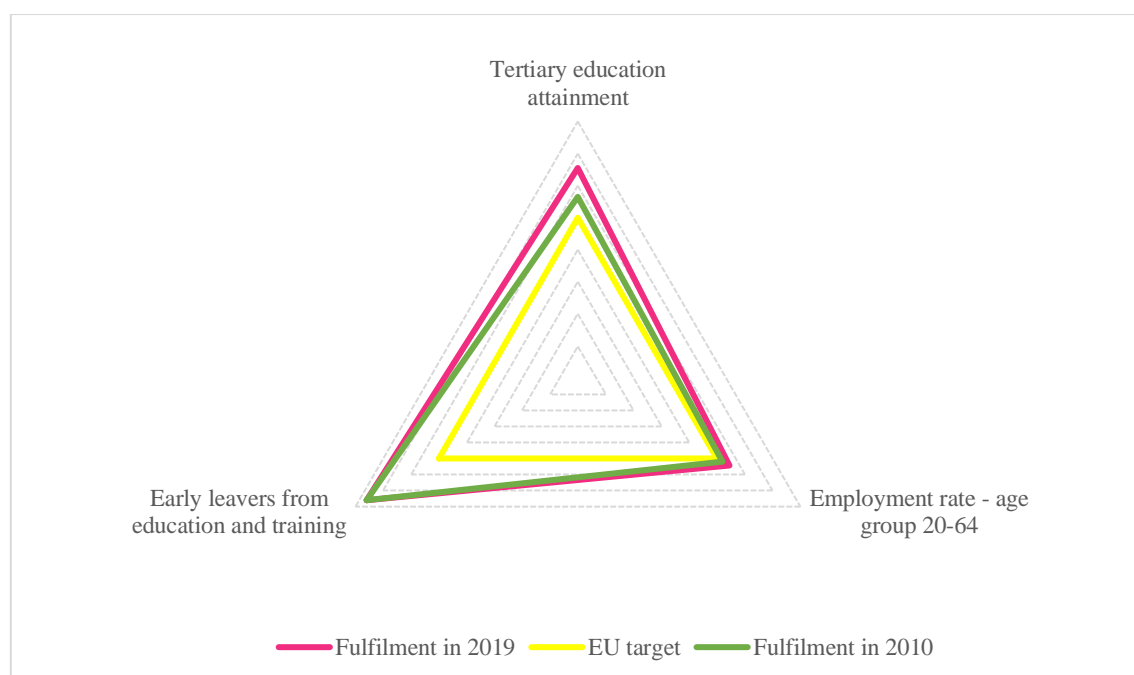


Source: Author

4.5.27 Sweden

In 2019, Sweden surpassed all three EU targets. As for the early leavers from education and training target, in which Sweden performed best, it succeeded in surpassing this target by 52 %. The target on tertiary education attainment exceeded by 31 % and the target on employment rate by 9 %. Compared to 2010, it advanced in two EU targets but did not change its position in the early leavers from education and training target.

Graph 27: Change since 2010 in relation to EU targets in Sweden

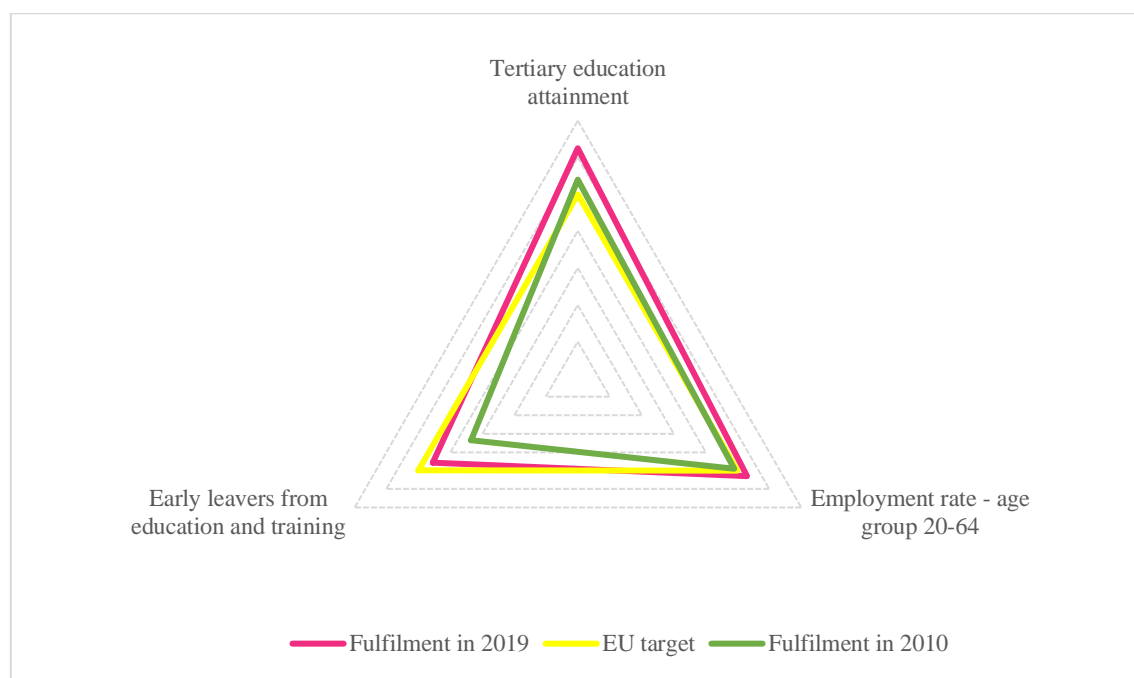


Source: Author

4.5.28 United Kingdom

The United Kingdom exceeded two EU targets in 2019. It performed best in the tertiary education attainment target since it surpassed this target by 25 %. The level of fulfilment of the employment rate target was higher by 6 %. It did not reach the early leavers from education and training target because it lacked 9 %. When compared to 2010, the United Kingdom improved in all three EU targets, especially in the target on early leavers from education and training by 24 %.

Graph 28: Change since 2010 in relation to EU targets in the United Kingdom



Source: Author

5 Discussion

This chapter includes a discussion of the research contribution, methodology, overall summary of the results as well as major findings with references to the latest literature dealing with this topic. Also included is a justification of the results obtained in the research carried out. The chapter concludes with a discussion of research limitations, areas for future research along with future forecast.

The purpose of this quantitative research was to find out the results of current implementation of the policy Europe 2020 on the basis of chosen indicators. When finding available literature dealing with this topic, I observed that there are not sources which present the results of current implementation of the policy Europe 2020, i.e. from the year 2019 to the present. I was only able to find those describing the results of previous years. My master thesis provides new findings on implementation of the policy Europe 2020 in 2019, when the latest data were available on the Eurostat. Therefore, I think that it contributes significantly to fill persisting gaps in this area of research.

In order to find out how individual Member States implemented this policy in 2019, I decided to create their rankings based on three indicators: early leavers from education and training, tertiary education attainment and employment rate – age group 20-64 that are related to each other. On the basis of these indicators, I was able to evaluate the implementation of the three concrete EU targets of the policy Europe 2020, namely that the share of early school leavers should be under 10 %; at least 40 % of the younger generation should have a tertiary degree; 75 % of the population aged 20-64 should be employed. Within each of the indicators, three rankings were made. The first ranking shows the placings of individual Member States given the percentage at which they met the three EU targets. The second ranking presents positions of Member States according to the best performing one in each EU target. The third ranking illustrates the placings of Member States based on their percentage change when fulfilling the EU targets in 2019 compared to the year 2010. Two additional rankings of Member States were created as well. One of them indicates positions of individual Member States in relation to their average implementation of the EU targets. The other one shows the placings of Member States according to the number of fulfilled EU targets in 2019 compared to 2010. The results obtained from rankings are demonstrated in column and radar charts. In addition, radar charts describing the results of each Member State were made.

The results indicate that most Member States were successful in implementing the policy Europe 2020 in the area of education and employment in 2019. However, the biggest differences between Member States were evident in the early leavers from education and training target. On the other hand, the results obtained for other two targets, namely tertiary education attainment and employment rate - age group 20-64, suggest that Member States were more equal during their implementation. Compared to the year 2010, when the policy Europe 2020 was launched, all Member States made progress in the tertiary education attainment target and, except one, in the employment rate – age group 20-64 target as well. As for the early leavers from education and training target, most of Member States advanced in 2019.

Early leavers from education and training indicator

Regarding the results obtained in the first ranking, Member States such as Croatia, Lithuania and Greece performed best in the target which states that the share of early school leavers should be under 10 % by 2020. Spain, Malta and Romania, by contrary, were Member States with the worst results. These findings are in consistent with the most recently published Eurostat results (2019, p. 60).

As far as the second ranking is concerned, Croatia was the Member State which had the best value of this indicator and taking into account this, Lithuania took 2nd and Greece 3rd place. Spain, Malta and Romania were the furthest from the Croatia's result. The reasons for this are mentioned below.

Croatia is the last Member State to join the EU in 2013. One of the reasons why it is ranked among the top three Member States is, that it has adopted the national target of 4,0 % which is very ambitious in comparison with the EU target of less than 10 %. The Croatian government (*Vlada republike hrvatske*) (2020, p. 57) states that the low level of early school leaving is related to the way in which the education system is established, as well as the long tradition of inclusion in the education system.

The result in Lithuania can be explained by the fact that many young people aged 18-19 still study at general education schools and most of them then continue their studies at higher schools (“National Study and Statistics on Early School Leaving in Lithuania”, 2018, p. 16).

In Greece, new legislation which was introduced in 2016 reformed the Vocational Lyceum (Upper Secondary Vocational Cycle). “*This allows for permeability among*

programmes in a more flexible framework, so as to attract a greater number of students and promote a smoother transition from one education pathway to another.” (Directorate-General for Education, Youth, Sport and Culture, 2019a, p. 55)

Concerning Malta, the NEET rate (the share of young people who are neither in employment nor in education and training) plays an important role as well as the ELET rate (the share of early leavers from education and training). *“Malta, with very high “ELET only” rates, has a very small share of people who are “NEET only”, signalling that the Maltese labour market offers opportunities for people with low levels of education, especially in industries such as tourism”* (Directorate-General for Education, Youth, Sport and Culture, 2019a, p. 54). There is shortage of enough qualified teachers in both Malta and Romania (Directorate-General for Education, Youth, Sport and Culture, 2019b, pp. 197; 235).

Romania invests little in education compared to other Member States. Customarily, insufficient investment is manifested especially in pre-university education where basic funding and existing correction factors are not enough to meet the needs of schools. Romania also faces demographic decline which, in recent years, has led to the closure of many schools. Factors that influence early school leaving are e.g. socio-economic aspects and gaps in the provision of quality education, particularly in rural areas. (Directorate-General for Education, Youth, Sport and Culture, 2019b, pp. 236; 238)

The main reasons for the early school leaving in Spain are finding a job, perception that continuing studies would not help students find a job and family reasons (“National Study and Statistics on Early School Leaving in Spain”, 2018, p. 9).

Concerning the third ranking, the greatest progress was made by Greece, Croatia and Lithuania, but the two of them, namely Croatia and Lithuania, had already fulfilled the target in 2010. Given the latter, Greece and Ireland improved the most in implementation compared to 2010. On the other hand, Slovakia, the Czech Republic, Hungary, Bulgaria and Luxembourg deteriorated, but mostly Bulgaria and Hungary since they had not met the target in 2010 either. Only Sweden ended up with the same result as in 2010, so it neither deteriorated nor improved.

In the past years, strict fiscal consolidation has taken place in Greece, specifically in the areas of education and training. Important structural reforms followed as part of the economic adjustment programme, which lasted until the end of June 2015. Greece has

also started work on reorganising general education and modernising the vocational education and training sector. In the school year 2013/14, a new information system “My School” was introduced for all primary and secondary schools where is a database of students along with indicators required to measure early school leaving. (Directorate-General for Education and Culture, 2015, pp. 119-120)

Ireland is one of the Member States which invests a lot of money in education, thus the share devoted to this sector is among the highest in the EU (Directorate-General for Education, Youth, Sport and Culture, 2019b, p. 144). In order to attain a more responsive and relevant system to labour market needs, reforms have been carried out (Directorate-General for Education and Culture, 2015, p. 140). In 2016, the Irish government introduced a very comprehensive Action Plan for Education (2016-2019) consisting of actions focused on disadvantage, skills and continuous improvement within the education sector (Directorate-General for Education and Culture, 2016, p. 144).

Bulgaria still struggles with early leaving from education and training, particularly in rural areas characterised by higher poverty and lower level of education. Another persistent problem is temporary or permanent emigration. There is also ongoing need for modernisation of schools which often lack basic facilities or equipment and do not have laboratories or sports facilities. (Directorate-General for Education, Youth, Sport and Culture, 2019b, pp. 32-33) In 2012, the age of compulsory schooling in Bulgaria and Hungary was reduced from 18 to 16, which in the following years has resulted in a huge drop of young people aged 17 and 18 in secondary education.

As in the case of Bulgaria, educational outcomes in Hungary are lower in rural areas due to more limited capacity of providing quality education services and existing teacher shortages. (Directorate-General for Education, Youth, Sport and Culture, 2019b, pp. 32; 134) The vocational programme in duration of three years in Hungary does not attract young people and does not provide flexible career opportunities. The governmental expenditure on education, expressed as a proportion of GDP, is one of the lowest in the EU. (Directorate-General for Education and Culture, 2015, p. 129)

Tertiary education attainment indicator

As for the results obtained in the first ranking, Cyprus, Lithuania and Luxembourg were the most successful in reaching the target which states that at least 40 % of the younger generation (aged 30-34) should have a tertiary degree by 2020. On the contrary, Romania,

Italy and Bulgaria failed. These findings are also in line with those of the most recently published by Eurostat (2019, p. 60).

Regarding the second ranking, Cyprus represented the best performing Member State based on this indicator, followed by Lithuania and Luxembourg. Member States such as Romania, Italy and Bulgaria had the worst results since they were the furthest from the value of Cyprus.

Cyprus has a booming education industry as it invests extensively into this sector and is becoming a regional hub for education and research (Invest Cyprus, 2020). “*It has recently taken measures to strengthen quality assurance in higher education*” (European Commission, 2017, p. 5). In addition, chances for future university absolvents to find a job have improved (European Commission, 2020, p. 48).

In Lithuania, after finishing general education schools, most of young people then continue to study at universities (“National Study and Statistics on Early School Leaving in Lithuania”, 2018, p. 16). Lithuania as well as Luxembourg belong to the OECD countries where adults who have completed tertiary education have the greatest employment advantage compared to those who have only completed upper secondary or post-secondary non-tertiary education (OECD, 2019a, p. 2; Directorate-General for Education, Youth, Sport and Culture, 2019b, p. 188). Great amount of graduates of the migrant population also contributes to the high level of tertiary education attainment in Luxembourg (Directorate-General for Education, Youth, Sport and Culture, 2019b, p. 188). Above that, the system of tertiary education in Luxembourg is very attractive (OECD, 2019b, p. 2).

In Romania, factors such as demographics, the high proportion of early school leavers and a low pass rate for the baccalaureate exam influence the total of students who enter higher education. (Directorate-General for Education, Youth, Sport and Culture, 2019b, p. 239)

AlmaLaurea (2019) argues that the family background plays an important role concerning tertiary education attainment in Italy, and higher education graduates are those whose at least one parent completed this level of education (as cited in Directorate-General for Education, Youth, Sport and Culture, 2019b, p. 157). For highly qualified people is difficult to find employment in their country, thus they move abroad and look for a job there. University fees, which are high, and selective admissions in several faculties pose

problems as well. (Directorate-General for Education, Youth, Sport and Culture, 2019b, pp. 157-158)

The drop in enrolled students at universities in Bulgaria is caused by demographic trends and the national policy to decrease the number of students in certain study fields (Directorate-General for Education, Youth, Sport and Culture, 2019b, p. 33).

As far as the third ranking is concerned, all Member States progressed in achieving this target. Especially Austria, Slovakia and Malta progressed most because none of them had attained it in 2010.

In Austria, the tertiary education attainment has increased “*due to a reclassification of qualifications stemming from higher technical and vocational colleges introduced in ISCED 2011*” (Directorate-General for Education and Culture, 2015, p. 11). “*In March 2015, the Austrian Higher Education Conference presented a recommendation on improvements to the quality of higher education teaching (Qualität der Lehre)*” (Directorate-General for Education and Culture, 2015, p. 12). This recommendation was aimed at the ability of individual teachers, the courses offered by universities, the organisation of learning and teaching, and the efficiency of the higher education system (Directorate-General for Education and Culture, 2015, p. 12). Austria is very attractive for international students, so universities have also started to offer programmes mainly in English. The access to tertiary education is in principle free. Grants awarded to students as well as the number of recipients have increased. (Directorate-General for Education, Youth, Sport and Culture, 2017, p. 12)

In Slovakia, “*the complex re-accreditation exercise that was finalised in 2015 has resulted in the closure of some low-quality programmes and requests for some institutions to bring about improvements*” (Directorate-General for Education and Culture, 2016, p. 251). In 2016, the long-standing reform of higher education was re-launched by the authorities. (Directorate-General for Education and Culture, 2016, p. 251) “*A new legal framework for quality assurance in higher education (Act no 269/2018) and the amendment to the act on higher education institutions (Act no 270/2018) came into force on 1 November 2018*” (Directorate-General for Education, Youth, Sport and Culture, 2019, p. 249). The new system of accreditation and the increased importance of quality assurance processes represented the main changes (Directorate-General for Education, Youth, Sport and Culture, 2019, p. 249).

“Malta has created a quality assurance framework for further and higher education and additionally, the government has also introduced tax incentives for students when continuing their education at tertiary level” (Directorate-General for Education and Culture, 2015, p. 188). In addition to the University of Malta which provides tertiary education, MCAST, ITS and many other institutions awarding select qualifications, certificates, diplomas, higher diplomas and degrees have been established. (Directorate-General for Education, Youth, Sport and Culture, 2017, pp. 208-209) In 2017, *“the Ministry for Education and Employment launched a public consultation on the new University of Malta Act which aims at developing a sustainable framework in order to support higher education institutions and to improve the quality of teaching and learning”* (Directorate-General for Education, Youth, Sport and Culture, 2017, p. 209).

Employment rate – age group 20-64

As regards the results obtained in the first ranking, Sweden, Germany and the Czech Republic were the most successful Member States when fulfilling the target which states that 75 % of the population aged 20-64 should be employed by 2020. Greece, Italy and Croatia belonged to the most unsuccessful Member States. These findings are in agreement with the most recently published Eurostat results (2019, p. 24).

Concerning the second ranking, Sweden was the leader in performing this target. According to its result, Germany and the Czech Republic were the other best Member States. Greece, Italy and Croatia, on the contrary, were the furthest from Sweden’s result.

In Sweden, many young people completed tertiary education in 2019 which contributed to the best result within this EU headline target. *“Young recent graduates with tertiary education tend to have a considerably higher rate of employment than their peers that hold lower levels of qualification”* (Joint Employment Report, 2020, pp. 46-47). It has one of the highest adult participation in education and training rate and its level of the population aged 16-74 having digital skills is also one of the best in the EU (Joint Employment Report, 2020, pp. 50-51). The long-term unemployed represent small proportion in Sweden (Employment and Social Developments, 2019, p. 37). There is the lowest gender employment gaps (Joint Employment Report, 2020, p. 58). The employment rates of young people (aged 15-34) having a migrant background has increased in Sweden due to its system of subsidised employment, a new supportive measure so called “introduction jobs”, and a more funding for “local job tracks” including

labour market education, Swedish language for immigrants and internships. (Joint Employment Report, 2020, pp. 62-63; 70).

Germany performs best in NEET rate and it has the best results in tackling the situation of net earnings of a full-time single worker without children earning an average wage (Joint Employment Report, 2020, p. 26). The wage share has slightly increased (Joint Employment Report, 2020, p. 36). Regarding financial incentives promoting integration of specific groups in the labour market, *“under the Teilhabechancengesetz programme, in case of hiring of long-term unemployed, the State pays 75 % of their wage in the first year and 50 % in the second year”* (Joint Employment Report, 2020, p. 40). As in the case of Sweden, Germany has one of the best levels in the EU when the population aged 16-74 having digital skills is concerned (Joint Employment Report, 2020, p. 51). Over the last decade, there have been the largest increases in the number of working people aged 55-64 (Joint Employment Report, 2020, p. 57). Germany has also taken steps in order to address the gender pay gap. Due to a large number of migrants, a job-related language training, enabling them easier integration into the labour market, is offered to them (Joint Employment Report, 2020, p. 70). Moreover, *“in the frame of the new law on skilled immigration (Fachkräftezuwanderungsgesetz) adopted in June 2019, Germany made the recognition of vocational and professional qualifications issued in third countries easier”* and *“it adopted a wider reform facilitating immigration of skilled workers from third countries”* (Joint Employment Report, 2020, p. 71).

The Czech Republic belongs to the Member States which perform best in terms of income inequality, the NEET rate and in 2018 it had the lowest unemployment rate in the EU (Joint Employment Report, 2020, p. 26). The nominal wage has grown rapidly in the Czech Republic. Real wage growth has contributed to *“increasing employees’ purchasing power and fostering upwards convergence in living conditions”* (Joint Employment Report, 2020, p. 34). In the Czech Republic, the share of young adults who do not have relevant level of qualification required by the labour market is less than 10 % (Joint Employment Report, 2020, p. 49). The employment rate of people aged 55-64 has raised rapidly during recent years (Joint Employment Report, 2020, p. 57). The level of long-term unemployment is among the lowest in the EU (Joint Employment Report, 2020, p. 82).

Greece has one of the biggest share of long-term unemployed persons in the EU (Joint Employment Report, 2020, p. 19). It scores negatively on gender employment gap as well

as NEET rate (Joint Employment Report, 2020, p. 26). Wages in Greece remain low compared to other Member States, thus income inequality is noticeable (Joint Employment Report, 2020, pp. 35; 99). There has been “*more than 30 % of students who failed to reach basic proficiency levels in reading*” (Joint Employment Report, 2020, p. 45). The participation of adults in education and training is very low (Joint Employment Report, 2020, p. 50). Many people lack digital skills, more precisely in the area of using internet (Joint Employment Report, 2020, p. 51). There is ongoing significant youth unemployment, so many young people aged 15-24 are economically inactive (Joint Employment Report, 2020, p. 54). In Greece, young people born to non-EU-born parents face more challenges while looking for a job (Joint Employment Report, 2020, p. 62). “*Greece combines high shares of involuntary part-time and temporary employment, which creates challenges in terms of continuity of employment and job quality*” (Joint Employment Report, 2020, p. 76).

In Italy, the proportion of youth unemployment has been still above 30 % (Joint Employment Report, 2020, p. 19). Italy belongs to the Member States with the smallest number of young people completed tertiary education. The gender employment gap is present there. Italy also performs bad regarding the NEET rate and the long-term unemployment rate (Joint Employment Report, 2020, p. 26). Wages have slightly decreased (Joint Employment Report, 2020, pp. 35-36). The share of population having internet use skills remains below 40 % in Italy (Joint Employment Report, 2020, p. 51). The number of employees aged 15-24 involuntarily employed on contemporary contracts is high, as they cannot find a permanent job (Joint Employment Report, 2020, p. 54; 75). Native-born people with non-EU-born parents face employment challenges and “*the greatest deterioration for children with a migrant background was observed in countries that suffered most from the economic downturn, such as Italy*” (Joint Employment Report, 2020, p. 62).

Croatia fights with low levels of digital skills (Joint Employment Report, 2020, p. 26). The share of adults who participate in education and training belongs to the smallest in the EU (Joint Employment Report, 2020, p. 50). As in Italy, many young people aged 15-24 are involuntarily employed on temporary contracts because they cannot find a permanent job (Joint Employment Report, 2020, pp. 54; 75). The gender pay gap has increased enormously (Joint Employment Report, 2020, pp. 59-60). In Croatia, children of immigrants do not attend early education (Joint Employment Report, 2020, p. 60). “*Both*

investments in and participation to active labour market policies remain significantly below the EU average and with an increasing gap over recent years” (Joint Employment Report, 2020, p. 83).

With regard to the third ranking, all Member States, except one, advanced in fulfilment of the target compared to 2010. The best ones were Malta, Hungary, Estonia and Lithuania. Only Greece did the worst and deteriorated its position.

In 2015, Malta as well as Hungary introduced or extended the targeted hiring subsidies in order to encourage employers to employ specific groups facing labour market integration problems (e.g. youth, older people, long-term unemployed, refugees, etc.) (Joint Employment Report, 2017, p. 28). Through employment quotas, *“Malta has begun to implement specific schemes and lifelong learning strategies aiming at supporting people with disabilities or other disadvantaged people in obtaining and maintaining paid employment in the open market”* (Joint Employment Report, 2017, p. 56). It has also introduced a Work Programme Initiative which provide profiling, training and job placements to the long-term unemployed people aged 25-56 (Joint Employment Report, 2017, p. 60). An IT tool intended for employers and job seekers has been created in Malta.

It creates a Virtual Labour Market, matching job search with current vacancies taking into account skills and aptitudes. This measure is meant to contribute to a more efficient public employment service and will also assist in policy development through skills needs information. (Joint Employment Report, 2017, p. 70)

“In Malta, starting from the academic year 2017-2018, career guidance programmes were launched in all state colleges to encourage post-secondary education or employment” (Joint Employment Report, 2018, p. 43).

Hungary *“has introduced training and financial support to young entrepreneurs, as part of the Youth Guarantee, and to social enterprises (including through employment-related temporary wage subsidies for disadvantaged workers)”* (Joint Employment Report, 2017, p. 29). Hungary has focused on tackling low proficiency in basic skills and improving of digital skills (Joint Employment Report, 2017, p. 48). Concerning the public employment services, *“a new profiling system has been operating nation-wide since 2016 in order to provide customised efficient labour market services, subsidies and labour market programmes based on the individual characteristics of the client”* (Joint Employment

Report, 2017, p. 68). In 2017 and also in 2018, the minimum wage was increased in agreement with social partners (Joint Employment Report, 2018, p. 28).

Regarding the public employment services, in 2016, the new Employment programme for the period 2016-2017 was adopted by the Estonian government (Joint Employment Report, 2017, p. 68). “*Estonia put in place on 1 July 2016 quotas for the employment in the public administration and an objective to employ 1000 disabled people in the public sector by 2020*” (Joint Employment Report, 2017, p. 90). Estonia reduced labour costs in 2018, as its Parliament adopted the new tax-reform plan by which the basic income tax allowance per month increased from EUR 180 to EUR 500 (Joint Employment Report, 2018, p. 27). In 2017, Estonia revised the “My First Job” programme in order to increase support for young people aged 16-29, thus make conditions more flexible and increase training possibilities. Within this scheme, employers receive a training compensation of up to EUR 2 500. (Joint Employment Report, 2018, p. 45) “*Estonia has adopted a Labour Market Programme for 2017-2020, which offers active measures to prevent unemployment, for people who are at greater risk of losing their job, including people with health concerns*” (Joint Employment Report, 2018, p. 48).

Newly created enterprises in 2014 contributed to increasing employment by more than 4 % in the business sector in Lithuania (Joint Employment Report, 2017, p. 23). Policy reforms in adult learning focused on basic skills or keeping skills up-to-date as well as preventing early retirement have been carried out. It has especially “*paid attention to conditions for improving the quality of non-formal adult education and continuous training*”. (Joint Employment Report, 2017, p. 49) In Lithuania, employers who hire young people registered with the public employment services can receive a compensation of 50 % of the gross wage for up to six months. The long-term unemployed youth or young parents of two children are the most prioritised groups. (Joint Employment Report, 2017, p. 52) In 2017, Lithuania introduced a major reform to its Labour Code which consisted of several aspects aiming at employment protection legislation such as clarifying reasons for termination of employment, reducing the notice period, setting new rules for defining severance payment, reducing the maximum duration of fixed-term contracts and introducing flexible working hours. Part of the mentioned reform was the introduction of possible flexible working schedules and teleworking as well. (Joint Employment Report, 2018, pp. 55-56)

As for Greece, nominal compensation per employee has decreased there (Joint Employment Report, 2017, p. 25). Based on the OECD's Survey of Adult Skills (PIAAC) which took place in 2012, it was found out that in Greece "*a third or more of working-age adults display low levels of proficiency in literacy and/or numeracy skills*" (Joint Employment Report, 2017, p. 34). Greece belongs to the Member States where minimum of one quarter of the population did not have digital skills in 2016 (Joint Employment Report, 2018, p. 33).

Additional rankings

With regards to the first additional ranking, Lithuania, Ireland and Croatia were the Member States which, on average, performed best in relation to all three targets in 2019. On the contrary, Member States such as Italy, Romania and Bulgaria had the worst results in all three targets. This is also evident from the above mentioned information.

Concerning the second additional ranking, Latvia was the only Member State that made the biggest progress, i.e. from zero to three, in terms of the number of fulfilment targets in 2019 compared to 2010. Sweden has managed to maintain its position, i.e. meeting all three targets. No progress was made by Italy and Romania.

The present quantitative research is limited by chosen indicators, as I used only three out of a total of eight or nine in the whole policy Europe 2020. Future research in this field could focus on finding out the results of current implementation of this policy based on remaining indicators or some of them. The policy Europe 2020 will end this year, so another topic for future research in this area could be to assess the implementation of the policy Europe 2020 for its duration, i.e. ten years.

In conclusion, it is difficult to estimate whether the policy Europe 2020 will be successful or not. In 2019, the average level of fulfilment for the whole EU was 9,4 % in the early leavers from education and training indicator, 43,7 % in the tertiary education attainment indicator and 74,7 % in the employment rate – age group 20-64 indicator. These values indicate that the EU met the two targets last year and to fulfil the last one, it has 0,3 % left. On the other hand, given the Covid-19 pandemic, which hit not only Europe but the whole world earlier this year, it will be even more difficult for the EU to reach particularly the employment rate target this year.

6 Conclusion

The aim of this master thesis was to perform quantitative research and find out what are the results of current implementation of the policy Europe 2020 on the basis of chosen indicators, namely early leavers from education and training, tertiary education attainment and employment rate - age group 20-64. Thus, with the help of the research carried out, it was possible to examine how each Member State implemented this policy, particularly its three targets related to education and employment in 2019.

The master thesis is divided into several parts. In the first part, I provided the literature review with the description of the whole policy Europe 2020 as well as the relevant literature to my research. In the second part, I explained in detail the methodological procedure, including the creation of several types of rankings and graphs. In the third part, I presented the results obtained by the research in the form of tables and graphs and interpreted them. In the last part, I discussed the research contribution, major findings and their justification, research limitations, areas for future research and future forecast.

Based on the results obtained, it can be concluded that the policy Europe 2020 was well implemented by most Member States in 2019. The biggest differences between them were observed for the early leavers from education and training indicator. The situation was different for the two remaining indicators, where, however, Member States' results were more equal. In the comparison with the year 2010, majority of Member States advanced in all three targets, but mostly in the tertiary education attainment target and the employment rate – age group 20-64 target.

In total, nineteen Member States successfully achieved the target associated with the early leavers from education and training indicator and among the best were Croatia, Lithuania and Greece. There are several explanations for this, e.g. the long tradition of inclusion in the education system, age of compulsory schooling or reforms in this area. Spain, Malta and Romania performed the worst. This can be explained by the high rates of young people being neither in employment nor in education and training, underinvestment or poor quality of education. Greece and Ireland made the most progress in 2019, by contrary, Hungary and Bulgaria deteriorated.

Regarding the tertiary education attainment indicator, the same amount of Member States as in the previous case reached this target. The best performers were Cyprus, Lithuania and Luxembourg. It seems possible that these results are due to large investment in this

field, greatest employment advantages or attractive education system. Romania, Italy and Bulgaria ended up with the worst results from the reasons such as reduction of the number of students in certain study fields, high university fees or demographics. In the comparison with 2010, Austria, Slovakia and Malta progressed most in 2019 but Germany and Bulgaria the least.

Eighteen Member States fulfilled the target related to the employment rate - age group 20-64 with Sweden, Germany and the Czech Republic being the best. The reasons for this are e.g. large number of people with tertiary education as well as digital skills, measures for better integration of migrants, increase of the number of working people aged 55-64 or low level of long-term unemployed people. Greece, Italy and Croatia failed in meeting the target due to low wages, lack of digital skills, youth unemployment, small number of people with tertiary education or gender pay gap. In 2019, Member States that made the most progress compared to 2010 were Malta, Hungary and Estonia, only Greece deteriorated.

On average, Latvia, Ireland and Croatia met all three targets best in 2019, on the other hand, Italy, Romania and Bulgaria worst. Concerning the progress in the number of fulfilled targets in 2019 compared to 2010, Latvia did the best since it managed to fulfil all three targets in 2019, compared to 2010 when it had not reached any of them. By contrary, Italy and Romania were unsuccessful in both 2010 and 2019. Only Sweden was able to maintain its position, i.e. meeting all three targets in 2010 as well as in 2019.

The research presented in this master thesis is beneficial as it provides findings on the current implementation of one of the most important policies of the European Union, therefore evaluates its performance as a whole. During searching of existing literature in this field, I found out that there are relatively little papers dealing with this topic. Moreover, I managed to find only results from previous years, none from 2019 to present. Given the latter, I believe that my master thesis fills the gap in this research area. Future research could be focused on finding out the results of current implementation of the policy Europe 2020 but on the basis of remaining indicators or some of them. Given that the policy Europe 2020 entered into force in 2010 and ends this year, it would also be interesting to carry out its evaluation in ten year's time.

As far as limitations of my research are concerned, the research is limited by the number of chosen indicators, so it provides results only for education and employment area in the

European Union. Even so, I believe that my master thesis contributes to the mapping of the achieved results for the evaluated indicators in 2019.

7 Summary

This master thesis aims to find out the results of current implementation of the policy Europe 2020 on the basis of chosen indicators, specifically early leavers from education and training, tertiary education attainment and employment rate – age group 20-64 by carrying out a quantitative research. The master thesis is comprised of the following chapters: literature review, methodology, results and discussion.

The literature review provides detailed description of the policy Europe 2020 and also the available literature to the research is listed there. In the methodology part, the aim and objectives of the research, chosen indicators, research type, data collection and analysis are described and explained. Next chapter presents and interprets the results obtained by the research in the form of tables and graphs. The discussion focuses on the research contribution, overall summary of the results along with major findings and their justification, research limitations, areas for future research and future forecast.

The quantitative research carried out within this master thesis revealed that most of the European Union Member States well implemented the policy Europe 2020 in 2019 and compared to the year 2010, when the policy was launched, almost all of them made progress in the areas studied in 2019, which were education and employment.

Key words

Policy Europe 2020, Europe 2020 strategy, European Union, Member States, early leavers from education and training, tertiary education attainment, employment rate – age group 20-64, education, employment

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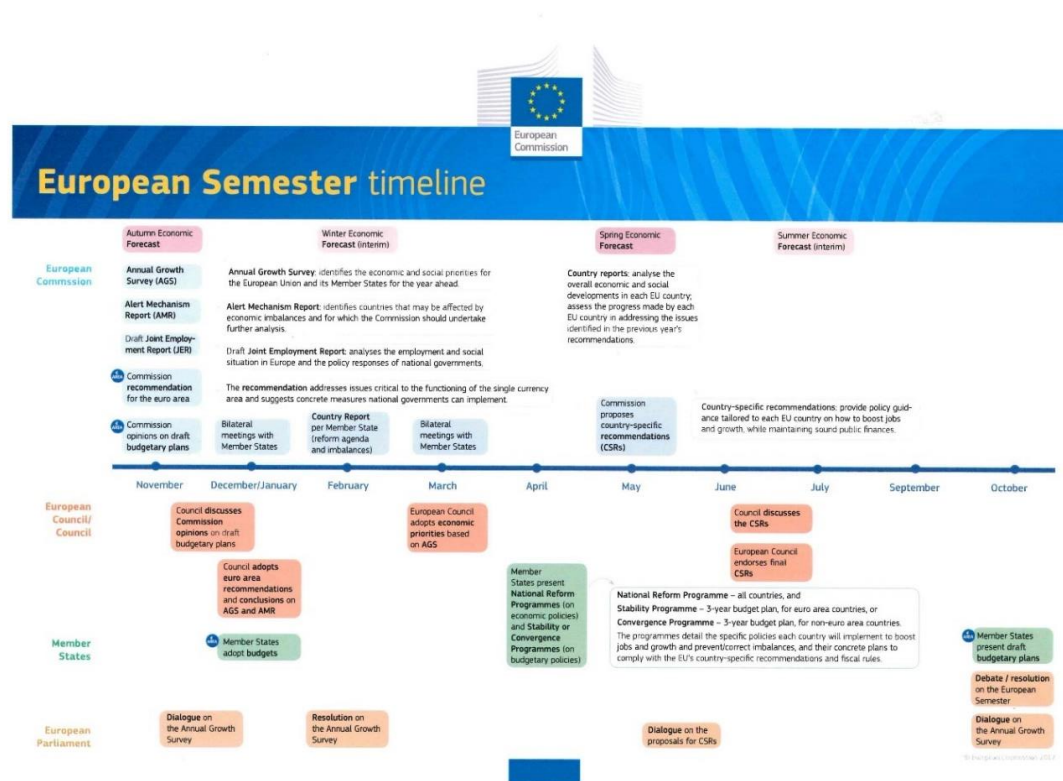
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Appendix

Appendix A: Visual presentation of the European Semester timeline

Figure A1: The European Semester timeline



Source: European Commission (n.d.)

Appendix B: Eurostat tables with Member States' values of individual indicators

Table B1: Early leavers from education and training, total

Early leavers from education and training by sex
 % of the population aged 18-24 with at most lower secondary education and not in further education or training

Total

geo	time	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	TARGET					
EU (27 countries - from 2020)																																			
EU (28 countries)																																			
EU (27 countries - 2007-2013)																																			
Euro area - 19 countries (from 2015)																																			
Belgium		18.1	17.4	16.1	15.1	12.9	12.7	14.5	15.2 ^(a)	13.8	13.8	14.1	14.3	13.1 ^(a)	12.9	12.6 ^(a)	12.1	12 ^(a)	11.1	11.9	12.3	12	11	9.8 ^(a)	10.1	8.8	8.9 ^(a)	8.6	8.4	9.5					
Bulgaria																																			
Czechia																																			
Denmark		15.2	8.5	8.6	6.1	12.1 ^(a)	10.7	9.8	11.5	11.7	9.2	9	10.4 ^(a)	8.8	8.7	9.1	12.9 ^(a)	12.7 ^(a)	11.5	11.5	10.3	9.6	8.2	8.1 ^(a)	8.1	7.5 ^(a)	8.8 ^(a)	10.4	9.9	10					
Germany																																			
Estonia																																			
Ireland		27.1	24	22.9	21.4	18.9	18.9																												
Greece		25.2	25	23.2	22.4	20.7	19.9	20.7	18.6	18.2	16.9 ^(a)	16.2	15.6 ^(a)	14.5 ^(a)	13.3	15.1 ^(a)	14.3	14.4 ^(a)	14.2 ^(a)	13.5	12.9	11.3	10.1	9 ^(a)	7.9	6.2	6	4.7	4.1	10					
Spain		40.4	37.7	36.4	33.8	31.4	30	29.6	29.5	29.1	29.7	30.9	31.7 ^(a)	32.2	31 ^(a)	30.3 ^(a)	30.8	31.7	30.9	28.2	26.3	24.7	23.6	21.9 ^(a)	20	19	18.3	17.9	17.3	15					
France																																			
Croatia																																			
Italy		37.5	37.1 ^(a)	35.1	32.8	31.7	30.1	28.4	27.2	25.1	25.9	24.2	23	23.1 ^(a)	22.1	20.4 ^(a)	19.5	19.6	19.1	18.6	17.8	17.3	16.8	15 ^(a)	14.7	13.8	14	14.5	13.5	16					
Cyprus																																			
Latvia																																			
Lithuania																																			
Luxembourg		42.2	36.8	34.4	33.4	35.3	30.7		19.1 ^(a)	16.8	18.1	17	12.3 ^(a)	12.7	13.3	14 ^(a)	12.5 ^(a)	13.4	7.7 ^(a)	7.1	6.2	8.1	6.1	6.1 ^(a)	9.3 ^(a)	5.5	7.3	6.3	7.2	10					
Hungary																																			
Malta																																			
Netherlands																																			
Austria																																			
Poland																																			
Portugal		50	46.7	44.3	41.4	40.1	40.6	46.6 ^(a)	44.9	43.7 ^(a)	44.3	45	41.2	39.3 ^(a)	38.3	38.5 ^(a)	36.5	34.9	30.9	28.3	23 ^(a)	20.5	18.9	17.4 ^(a)	13.7	14	12.6	11.8	10.6	10					
Romania																																			
Slovenia																																			
Slovakia																																			
Finland																																			
Sweden																																			
United Kingdom		34.7	36.3	32.3																															
Iceland																																			
Norway																																			
Switzerland																																			
Montenegro																																			
North Macedonia																																			
Serbia																																			
Turkey																																			

—=not available b=break in time series u=low reliability d=definition differs (see metadata)

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Source: Eurostat (2020b)

Table B2: Tertiary education attainment, total

Tertiary educational attainment by sex, age group 30-34
Total

geo	time	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	TARGET	
EU (27 countries - from 2020)												22.5	24.2	26	27.2	28	29	30.1	31.1	32.6	33.4	34.5	35.6	36.5	37.3	37.8	38.6	39.4	40.3		
EU (28 countries)												23.6	25	26.9	28	28.9	30	31.1	32.3	33.8	34.8	36	37.1	37.9 ^(b)	38.7	39.2	39.9	40.7	41.6	40	
EU (27 countries - 2007-2013)																														40	
Euro area - 19 countries (from 2015)											23.5	24	24.8	26.4	28.1	29.2	30	31	31.8	32.6	33.7	34.2	35.1	36.1	36.6 ^(b)	37.3	37.6	38.4	39.6	40.5	
Belgium		26.6	28.2	28.3	29.9	30.9	31.9	32.3	32 ^(a)		35.2	35.2	35.2	37.7	39.9	38.1	41.4	41.5	42.9 ^(b)	42	44.4	42.6	43.9	42.7	43.8 ^(b)	42.7	45.8	45.9 ^(b)	47.6	47.5	47
Bulgaria										19.5	23.6 ^(b)	23.2	23.6	25.2	24.9	25.3 ^(b)	26	27.1	27.9	28 ^(b)	27.3	26.9	29.4	30.9 ^(b)	32.1	33.8	33.8	33.7	32.5	38	
Czechia									11.8	12.5	13.7	13.3	12.6	12.6 ^(b)	12.7	13	13.1	13.3	15.4	17.5	20.4	23.7 ^(b)	25.6	26.7	28.2 ^(b)	30.1	32.8	34.2	33.7	35.1	32
Denmark		23.1	26.4	30.7	29.6	29.7 ^(b)	28.8	28.3	31.1	32.1	32.9	34.2	36.2 ^(b)	41.4	43.1	43	38.1 ^(b)	38.9 ^(b)	40.4	41.1	41.3	43.2	43.4	43.6 ^(b)	45.7	46.5 ^(b)	48.2 ^(b)	48.4	49	40	
Germany		24.1	24.3	23.6	24.2	23.7 ^(b)	24.8		24.5	25.7	25.5	24.2	25.1	26.8	26.1 ^(b)	25.8	26.5	27.7	29.4	29.7 ^(b)	30.6	31.8	32.9	31.4 ^(b)	32.3	33.2	34	34.9	35.5	42	
Estonia									32.5	29.5	30.4 ^(b)	28.5	27.7	28	28.3	31.7	32.5	33.5	34.4	36.3	40.2	40.2	39.5	42.5	43.2 ^(b)	45.3	45.4	48.4	47.2	46.2	40
Ireland		20	21.6	22.4	25.1	27.9	28.4		24.7	27.5	30.6	32	35.1	38.6	39.2	41.9	45.2 ^(b)	47.9	50.4	51.4	51	52.2	53.6	54.6 ^(b)	53.8	54.6	54.6 ^(b)	56.3	55.4	60	
Greece		17.7	18.6	19.5	20.7	22.1	23.1	25.8	25.4	25.4	25 ^(b)	23.5	23	25.1 ^(b)	25.5	26.9	26.3	25.7	26.6 ^(b)	28.6	29.1	31.2	34.9	37.2 ^(b)	40.4	42.7	43.7	44.3	43.1	32	
Spain		18.6	20.1	21.3	23.3	24.9	26.1	28.3 ^(b)	29.3 ^(b)	29.2	31.3	34.4	35.1	36.9	39.9 ^(b)	39.4	40.9	41.3	40.7	42	41.9	41.5	42.3	42.3 ^(b)	40.9	40.1	41.2	42.4	44.7	44	
France			20.8	22	22.2	21.1	21.7	25	26.2	27.4	29.5	31.5	34.8 ^(b)	35.6	37.7	39.7	41.4	41	43	43.2	43.1	43.3	44 ^(b)	43.7 ^(b)	45.1	43.7	44.4	46.2	47.5	50	
Croatia												16.2	16.9	16.8	17.4	16.7	16.8	16.5	21.3	24.5 ^(b)	23.9	23.1	25.6	32.1 ^(b)	30.8	29.3	28.7	34.1	33.1	35	
Italy		8.6	8.4 ^(b)	8.6	8.6	9.2	9.4	9.9	10.8	11.8	12.2	13.1	13.9	15.6 ^(b)	17.1	17.6	18.6	19.2	19	19.9	20.4	21.9	22.5	23.9 ^(b)	25.3	26.2	26.9	27.8	27.6	26	
Cyprus									31.5	31.1	32.7	36	39.9	41	40.8	46.1	46.2	47.1	46 ^(b)	45.3	46.2	49.9	47.8	52.5 ^(b)	54.5	53.4	55.9	57.1	58.8	46	
Latvia								18.3	16.4 ^(b)	18.6	16.3	17.3 ^(b)	18.3	18.2	18.5	19.3	25.7	26.3	30.5	32.6	35.9	37.2	40.7	39.9 ^(b)	41.3	42.8	43.8	42.7	45.7	34	
Lithuania								48	44.9	42.6	21.2	23.4 ^(b)	25.2	30.9	37.7	39.4	36.4	39.9	40.4	43.8	45.7	48.6	51.3	53.3 ^(b)	57.6	58.7	58	57.6	57.8	48.7	
Luxembourg		12.9	23.2	26.4	18	18.6	21.6		21.7 ^(b)	21.2	23.9	23.6	17.3 ^(b)	31.4	37.6	35.5	35.3 ^(b)	38.8	46.6 ^(b)	46.1	48.2	49.6	52.5	52.7 ^(b)	52.3 ^(b)	54.8 ^(b)	52.7 ^(b)	56.2	56.2	66	
Hungary							14.1	14.1	15.4	14.8	14.8 ^(b)	14.4	16.3	18.5	17.9	19.4	20.6	22.8	24	26.1	28.2	29.8	32.3	34.1 ^(b)	34.3	33	32.1	33.7	33.4	34	
Malta									7.4 ^(b)	12.9 ^(b)	9.3 ^(b)	13.7 ^(b)	17.6 ^(b)	17.6 ^(b)	20.7	20.8	21	21.9	22.1	23.4 ^(b)	26.3	28.7	28.6 ^(b)	29.1	32	33.5	34.7	37.8	33		
Netherlands						24.2	25.6	22.7	25.4	26.5	27.2	28.6	31.7	33.6	32.6 ^(b)	34.2	34.9	38	38.3	41.4	41.2 ^(b)	42.2	43.2 ^(b)	44.8 ^(b)	46.3	45.7	47.9	49.4	51.4	40	
Austria						9.9	10.3	10.8	9.7	16.3																					
Poland						13.5	11.3	11.9 ^(b)	12.5 ^(b)	13.2 ^(b)	14.4	17.2 ^(b)	20.4	22.7	24.7	27	29.7	32.8	34.8 ^(b)	36.5	39.1	40.5	42.1 ^(b)	43.4	44.6	45.7	45.7	46.6	45		
Portugal		15.1	14.3	14.9	13.2	12.7	14	9.4 ^(b)	11.1	11.1 ^(b)	11.6	12.9	14.7	16.3 ^(b)	17.5	18.3	19.5	21.6	21.3	24	26.7 ^(b)	27.8	30	31.3 ^(b)	31.9	34.6	33.5	33.5	36.2	40	
Romania						13	8.4	8.6	8.9	8.8	9.1 ^(b)	8.9 ^(b)	10.3	11.4	12.4	13.9	16	16.8	18.3 ^(b)	20.3	21.7	22.9	25 ^(b)	25.6	25.6	26.3	24.6	25.8	26.7		
Slovenia						15.3	15.8	15.8	15.7	18.5	18.1	20.7	23.6	25.1	24.6	28.1	31	30.9	31.6	34.8	37.9	39.2	40.1	41 ^(b)	43.4	44.2	46.4	42.7	44.9	40	
Slovakia								10.6	11.1	10.6	10.7	10.5	11.5	12.9	14.3	14.4	14.8	15.8	17.6	22.1	23.2 ^(b)	23.7	26.9	26.9 ^(b)	28.4	31.5	34.3	37.7	40.1	40	
Finland						24.8	23.7	26.2	36.3	39.2	40.3 ^(b)	41.6	41.2	41.7	43.4	43.7	46.2	47.3	45.7	45.9	45.7	46	45.8	45.1	45.3 ^(b)	45.5	46.1	44.6	44.2	47.3	42
Sweden						29.4	30.3	29.5	30.5	31.8	31.8	26.6 ^(b)	28.3	31	33.9	37.6 ^(b)	39.5 ^(b)	41	42	43.9	45.3	46.8	47.9	48.3	49.9 ^(b)	50.2	51	51.3	51.8 ^(b)	52.5	45
United Kingdom		21.3	22.8	23.2	24.1	24.6	25.5		28 ^(b)	29	29.9	31.5	31.5	33.6 ^(b)	34.5	36.4	38.3 ^(b)	39.5 ^(b)	41.4	43.1 ^(b)	45.5 ^(b)	46.9	47.4	47.7 ^(b)	47.8	48.1	48.2	48.8	50		
Iceland									28.9	32.6	31	33.6	38.2 ^(b)	38.8	41.1	36.4 ^(b)	36.3	38.3	41.7	40.9	44.6	42.8	43.9	46.4 ^(b)	47.1	48.8	53.7	51.7	52.8		
Norway						28.9	31.3	33.6	35.1	37.3	42.2	43.4	40.7	39.5	39.4	41.9 ^(b)	43.7	46.2	47	47.3	48.8	47.6	48.8	52.1 ^(b)	50.9	50.1	49	50.6	49.1		
Switzerland						25.3	27.8	27.3	27	27.3	27.3	30	32.4	32.8	33.4	35	36.5	41.3	43.4	41.9 ^(b)	41.8	42.3	44.8	47.2 ^(b)	49.3	51.2	52.8	55	56.1		
Montenegro																															
North Macedonia																															
Serbia																															
Turkey																															

*not available b:break in time series d:definition differs (see metadata) u:low reliability
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 General Disclaimer of the EC website: https://ec.europa.eu/info/legal_notice_en
 Short Description: The indicator is defined as the percentage of the population aged 30-34 who have successfully completed tertiary studies (e.g. university, higher technical institution, etc.). This educational attainment refers to ISCED (International Standard Classification of Education) 2011 level 5-8 for

Source: Eurostat (2020c)

Table B3: Employment rate – age group 20-64, total

Employment rate by sex, age group 20-64																														
%																														
Total																														
geo	time	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	TARGET	
EU (27 countries - from 2020)	:	:	:	:	:	:	:	:	65.5	65.8	65.7	66	66.3	66.8	68	69	69.5	68.2	67.8	67.9	67.6	67.5	68.2	69.1	70.1	71.3	72.4	73.1	:	
EU (28 countries)	:	:	:	:	:	:	:	:	66.5	66.8	66.7	67	67.3	67.8	68.8	69.8	70.2	68.9	68.5	68.6	68.4	68.4	69.2	70.1	71.1	72.2	73.2	73.9	75	
EU (27 countries - 2007-2013)	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	75		
Euro area - 19 countries (from 2015)	:	:	:	:	:	62.9	63.6	64.6	65.6	66.2	66.6	66.9	67.2	67.8	68.8	69.8	70.1	68.7	68.3	68.4	68	67.7	68.2	69	70	71	72	72.7	:	
Belgium	61.2 ^(a)	61 ^(a)	61.4 ^(a)	61.7 ^(a)	62.4 ^(a)	63.1 ^(a)	64.5 ^(a)		65.9	65 ^(b)	65	64.7	65.6	66.5	66.5	67.7	68	67.1	67.6	67.3	67.2	67.3	67.2	67.3	67.2	67.7	68.5 ^(b)	69.7	70.5	73.2
Bulgaria	:	:	:	:	:	:	:	55.3	54.8 ^(b)	55.8	58	60.1	61.9	65.1	68.4	70.7	68.8	64.7 ^(b)	62.9 ^(b)	63	63.5	65.1	67.1	67.7	71.3	72.4	75	76		
Czechia	:	:	:	:	:	73.4	71.5	71	71.2	71.6	70.7	70.1	70.7	71.2	72	72.4	70.9	70.4	70.9 ^(b)	71.5	72.5	73.5	74.8	76.7	78.5	79.9	80.3	75		
Denmark	74 ^(a)	74.3 ^(a)	75.1 ^(a)	75.5 ^(a)	76.5 ^(a)	77.1 ^(a)	77.7 ^(a)	78	78.3	77.7	77.3	77.6	78	79.4	79	78.7 ^(b)	76.1	74.9	74.8	74.3	74.3	74.7	75.4	76 ^(b)	76.6 ^(b)	77.5	78.3	80		
Germany	67.6 ^(a)	67.4 ^(a)	67.5 ^(a)	67.1 ^(a)	66.8 ^(a)	67.1 ^(a)	68.1 ^(a)	68.7 ^(a)	68.9 ^(a)	68.7 ^(a)	68.3 ^(a)	68.2 ^(a)	69.4 ^(a)	71.1	72.9	74	74.2	75 ^(b)	76.5 ^(b)	76.9	77.3	77.7	78	78.6	79.2	79.9	80.6	77		
Estonia	:	:	:	:	70.9 ^(a)	71.1 ^(a)	68.4 ^(a)	66.6 ^(b)	67.4	68	69.6	70.3	72	75.9	76.9	77.1	70	66.8	70.6	72.2	73.3	74.3	76.5	76.6	78.7	79.5	80.2	76		
Ireland	57.5 ^(a)	59.2 ^(a)	60.9 ^(a)	62 ^(a)	63.4 ^(a)	67.6 ^(b)	70.2	71.8	72.4	72.1	72	72.9	74	74.7	75.1 ^(b)	73.5	68	65.5	64.6	64.5	66.5	68.1	69.9	71.4	73	74.1	75.1	69		
Greece	58.5 ^(a)	59.1 ^(a)	59.7 ^(a)	60.1 ^(a)	60.4 ^(a)	61.3 ^(b)	61.4	61.9	61.5 ^(b)	62.5	63.6	63.9 ^(b)	64.4	65.6	65.8	66.3	65.6 ^(b)	63.8	59.6	55	52.9	53.3	54.9	56.2	57.8	59.5	61.2	70		
Spain	51.3 ^(a)	50.8 ^(a)	51.7 ^(a)	52.7	54.2	55.9	58.3	60.7	62.1 ^(b)	63.1	64.3	65.4	67.5 ^(b)	69	69.7	68.5	64	62.8	62	59.6	58.6	59.9	62	63.9	65.5	67	68	74		
France	:	:	:	:	:	:	:	:	:	69.2 ^(a)	69.1 ^(a)	68.9 ^(a)	68.9 ^(a)	69.4 ^(a)	69.9 ^(a)	69 ^(a)	68.9 ^(a)	68.8 ^(a)	68.9 ^(a)	69 ^(a)	69.2	69.5	70	70.6	71.3	71.6	75			
Croatia	:	:	:	:	:	:	:	58.3 ^(a)	56.9 ^(a)	58.1 ^(a)	58.4 ^(a)	59.5 ^(a)	59.9 ^(a)	60.6 ^(a)	63.9	64.9	64.2	62.1	59.8	58.1	57.2	59.2	60.6	61.4	63.6	65.2	66.7	62.9		
Italy	56.6 ^(a)	55.7 ^(a)	55.1 ^(a)	55.1 ^(a)	55.2 ^(a)	55.7	56.4	57.4	58.5	59.4	60	61.6 ^(b)	61.5	62.4	62.7	62.9	61.6	61	61	60.9	59.7	59.9	60.5	61.6	62.3	63	63.5	67		
Cyprus	:	:	:	:	71.2 ^(a)	71.2 ^(a)	71.1 ^(a)	72.2 ^(a)	73.9 ^(a)	74.9 ^(a)	75.2 ^(a)	75.1 ^(a)	74.4	75.8	76.8	76.5	75.3 ^(b)	75	73.4	70.2	67.2	67.6	67.9	68.7	70.8	73.9	75.7	75		
Latvia	:	:	:	:	65.5 ^(a)	65.3 ^(a)	64.5 ^(a)	63.6 ^(a)	64.5 ^(a)	66.6 ^(b)	67.8	67.9	69.1	73.2	75.2	75.4	66.6	64.3	66.3	68.1	69.7	70.7	72.5	73.2	74.8	76.8	77.4	73		
Lithuania	:	:	:	:	68.2 ^(a)	68.3 ^(a)	67.7 ^(a)	65.5 ^(a)	64.2 ^(a)	67.2 ^(a)	68.9	69.3	70.7	71.3	72.7	72	67	64.3	66.9	68.5	69.9	71.8	73.3	75.2	76	77.8	78.2	72.8		
Luxembourg	64.4 ^(a)	63.7 ^(a)	63.1 ^(a)	63.7 ^(a)	64.7 ^(a)	65.2 ^(a)	66.1 ^(a)	67 ^(a)	67.5 ^(a)	67.8 ^(a)	67.2 ^(b)	67.7	69	69.1	69.6 ^(b)	68.8	70.4 ^(b)	70.7	70.1	71.4	71.1	72.1	70.9 ^(b)	70.7	71.5	72.1	72.8	73		
Hungary	:	:	:	:	58 ^(a)	58.8 ^(a)	60.6	61.2	61.3 ^(b)	61.4	62.4	62.1	62.2	62.6	62.3	61.5	60.1	59.9	60.4	61.6	63	66.7	68.9	71.5	73.3	74.4	75.3	75		
Malta	:	:	:	:	57.5 ^(a)	57.5 ^(a)	57.5 ^(a)	57.4 ^(a)	57.4 ^(a)	57.7	57.8	57.9	57.4 ^(b)	57.9	58.6	59.2	59	60.1	61.6	63.9	66.2	67.9	69	71.1	73	75.5	77.2	70		
Netherlands	66.2 ^(a)	66.5 ^(a)	67 ^(a)	68.3 ^(a)	70.2 ^(a)	71.7 ^(a)	73 ^(a)	74.3	75.4	75.8	75.2	74.9	72.7 ^(b)	73.7	75.5	76.9	76.8	76.2	76.4	76.6	75.9	75.4	76.4	77.1	78	79.2	80.1	80		
Austria	:	:	70.8 ^(a)	70.3 ^(a)	70.5 ^(a)	70.9 ^(a)	71	71.4	71.3	71.8	72	69.5 ^(b)	70.4	71.6	72.8 ^(b)	73.8	73.4	73.9	74.2	74.4	74.6	74.2	74.3	74.8	75.4	76.2	76.8	77		
Poland	:	:	:	:	65.2 ^(a)	63 ^(a)	61 ^(b)	59.4 ^(b)	57.4	57.1 ^(b)	57.3 ^(b)	58.3	60.1	62.7	65	64.9	64.3 ^(b)	64.5	64.7	64.9	66.5	67.8	69.3	70.9	72.2	73	71			
Portugal	69.7 ^(a)	68.7 ^(a)	68.1 ^(a)	68.1 ^(a)	69	72.2 ^(b)	72.7	73.5	74	73.6	72.9	72.5	72.2	72.6	72.5	73.1	71.1	70.3	68.8 ^(b)	66.3	65.4	67.6	69.1	70.6	73.4	75.4	76.1	75		
Romania	:	:	:	:	70.4 ^(a)	69.4	69.1	68.3	63.3 ^(b)	63.7 ^(b)	63.5	63.6	64.8	64.4	64.4	63.5	64.8 ^(b)	63.8	64.8	64.7	65.7	66	66.3	68.8	69.9	70.9	70			
Slovenia	:	:	:	:	68.4 ^(a)	68.9 ^(a)	68.1	68.5	69.4	69	68.1	70.4	71.1	71.5	72.4	73	71.9	70.3	68.4	68.3	67.2	67.7	69.1	70.1	73.4	75.4	76.4	75		
Slovakia	:	:	:	:	67.7 ^(a)	67.4	65 ^(b)	63.5	63.5	63.6	64.8 ^(b)	63.7	64.5	66	67.2	68.8	66.4	64.6	65 ^(b)	65.1	65	65.9	67.7	69.8	71.1	72.4	73.4	72		
Finland	:	:	:	65 ^(a)	66.7 ^(a)	68.7	70.7	71.6 ^(b)	72.6	72.6	72.2	72.2	73	73.9	74.8	75.8	73.5	73	73.8	74	73.3	73.1	72.9	73.4	74.2	76.3	77.2	78		
Sweden	:	:	:	74.8 ^(a)	73.7 ^(a)	74.2 ^(a)	75.7 ^(a)	76.8 ^(a)	78.7 ^(b)	78.5	77.9	77.4	77.9 ^(b)	78.8	80.1	80.4	78.3	78.1	79.4	79.8	80	80.5	81.2	81.8	82.4 ^(b)	82.1	80			
United Kingdom	70.2 ^(a)	70.6 ^(a)	71.1 ^(a)	71.7 ^(a)	72.6 ^(a)	73.1 ^(a)	73.5 ^(a)	74	74.4	74.5	74.7	75 ^(b)	75.2	75.2	75.2 ^(b)	75.2 ^(b)	73.9	73.5	73.5	74.1	74.8	76.2	76.8	77.5	78.2	78.7	79.3	:		
Iceland	:	:	:	:	:	:	:	:	:	85.1 ^(b)	84.4	85.5	86.3	86.7	85.3	80.6	80.4	80.6	81.8	82.8	84.9	86.5	87.8	87.6	86.5	85.9	:			
Norway	:	:	78.1 ^(a)	79.8 ^(a)	81 ^(a)	80.6 ^(a)	80.3	80.1	79.6	78.4	78.2	78.2	79.5 ^(b)	80.9	81.8	80.6	79.6	79.6	79.9	79.6	79.6	79.1	78.6	78.3	79.2	79.5	:			
Switzerland	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	79.7 ^(b)	80.8	81	80.8	81.1	81.7	82	82.1	82.5	82.9	:	
Montenegro	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	50.7	52	52.7	55.6	57.1	58.2	59.8	60.8	:		
North Macedonia	:	:	:	:	:	:	:	:	:	:	:	:	:	43.9	45	46.3	47.9	48.1	48.4	48.2	50.3	51.3	51.9	53.3	54.8	56.1	59.2	:		
Serbia	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	54.8	56	59.1	61.4	63.1	65.2	:			
Turkey	:	:	:	:	:	:	:	:	:	:	:	:	:	:	48.2	48.2	48.4	47.8	50	52.2	52.8	53.4	53.2 ^(b)	53.9	54.4	55.3	55.6	53.8	:	

— not available e-estimated b-break in time series

Source of Data: Eurostat

Last update: 20/04/2020

Date of extraction: 21 Jun 2020 15:00:03 CEST

Hyperlink to the table: https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&code=12020_10

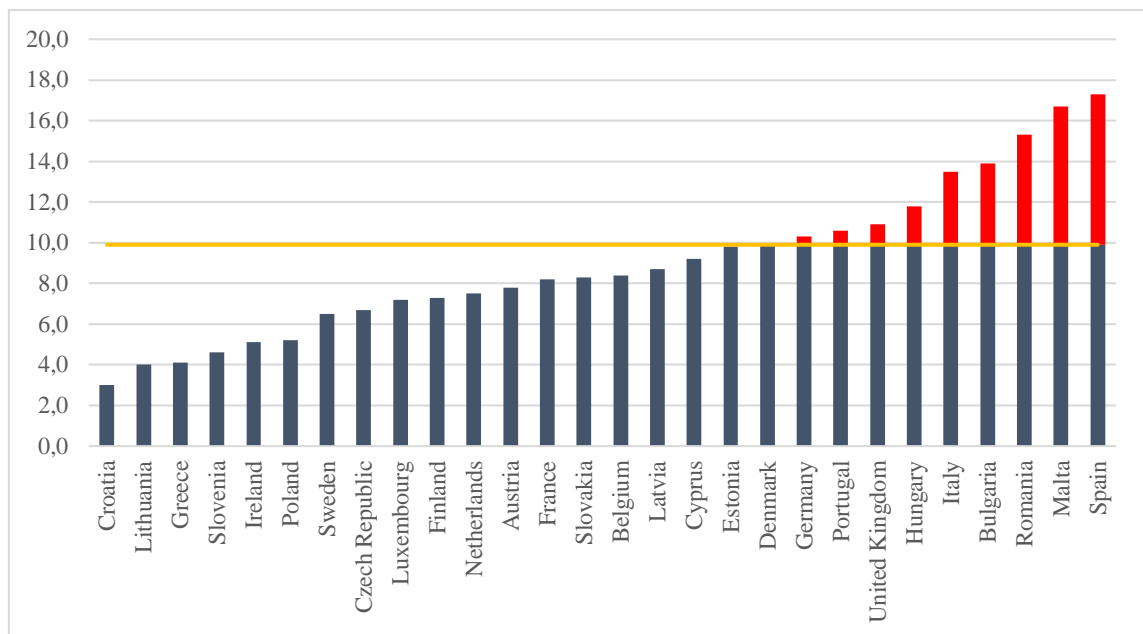
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Appendix C: Supplementary graphs to the tables with results

Early leavers from education and training indicator

The Graph E1 shows the fulfilment of the target on early leavers from education and training. On the horizontal axis are Member States from the best to the worst and on the vertical are the achieved values of the indicator of each of them. The orange horizontal line indicates the limit value which was 9,9 %. The red part of columns indicates that the Member State exceeded this limit, which was undesirable for this target.

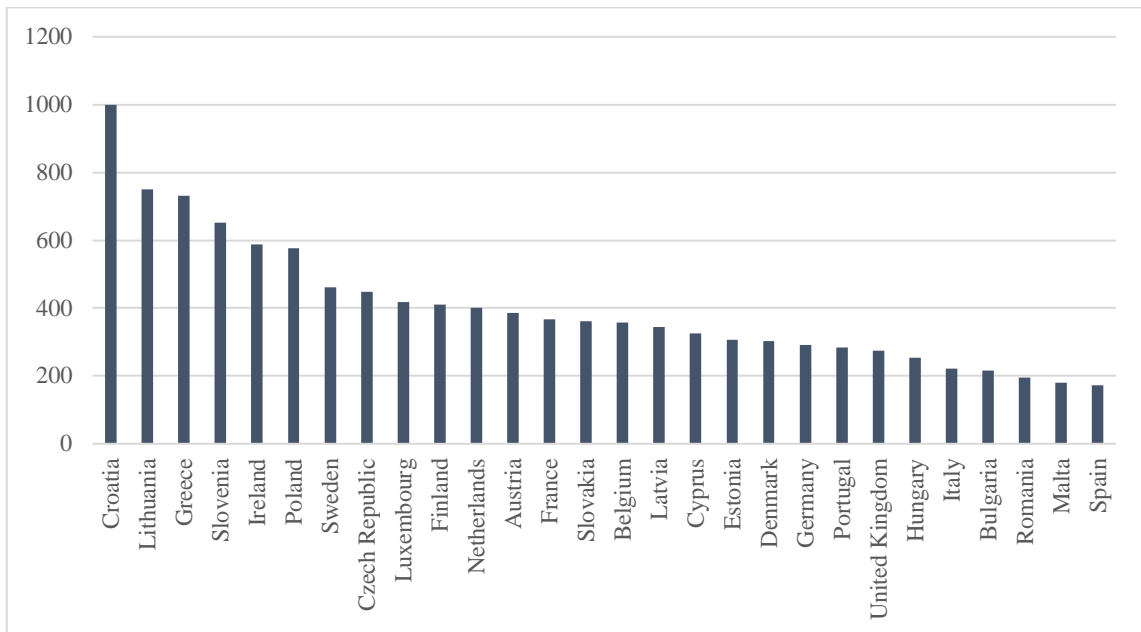
Graph C1: Fulfilment of the target on early education and training by Member States in 2019



Source: Author

The Graph E2 (also Graph E5 and E8) demonstrates the order of individual Member States according to the result of the best of them obtained using the Point Method. On the horizontal axis are Member States and on the vertical is the number of points of each of them.

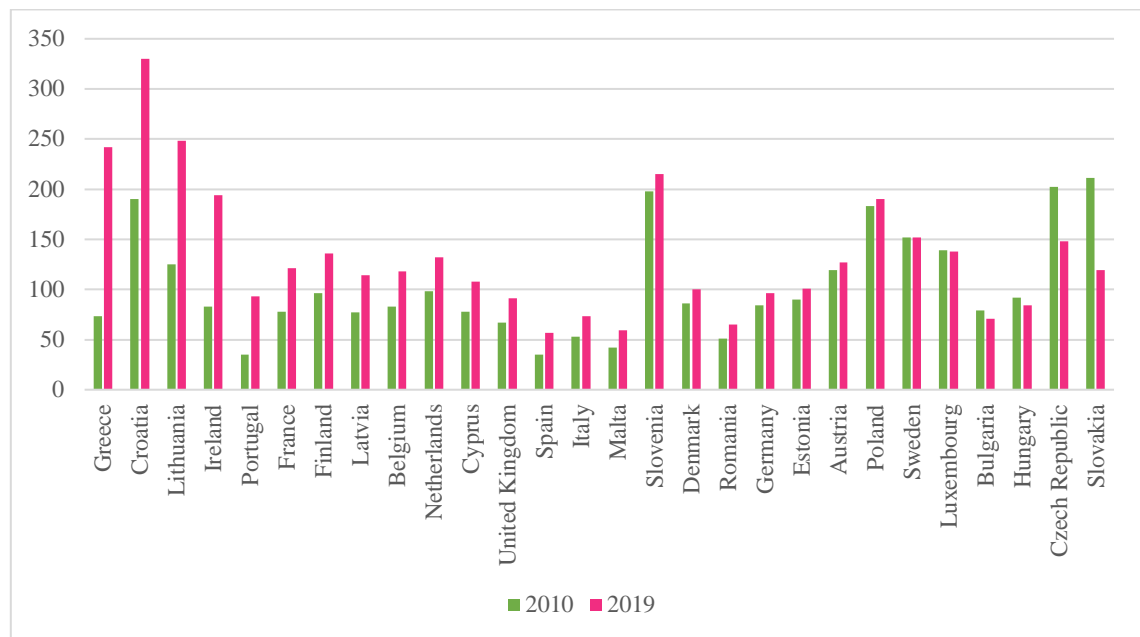
Graph C2: Member States' comparison in the target on early leavers from education and training in 2019 using the Point Method



Source: Author

The Graph E3 (also Graph E6 and E9) shows the change in Member States' fulfilment of the target on early leavers from education and training in 2019 compared to 2010. On the horizontal axis are Member States from the best to the worst and on the vertical is the percentage success in achieving this target by each of them.

Graph C3: Change in Member States' fulfilment of the target on early leavers from education and training in 2019 compared to 2010

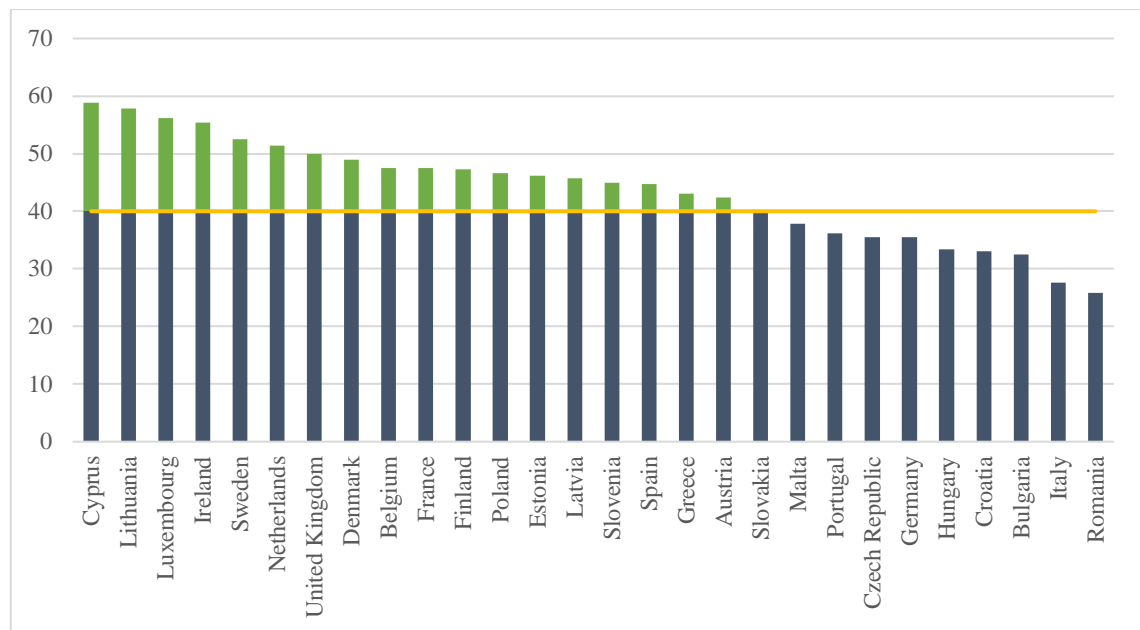


Source: Author

Tertiary education attainment indicator

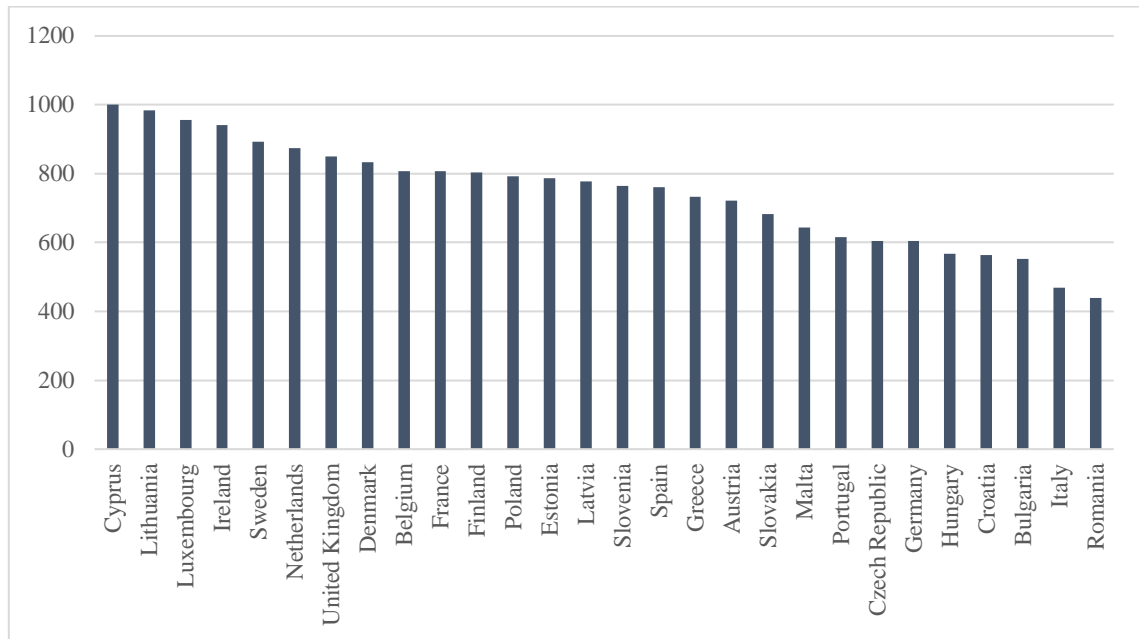
The Graph E4 demonstrates the fulfilment of the target on tertiary education attainment. On the horizontal axis are Member States from the best to the worst and on the vertical are the achieved values of the indicator of each of them. The orange horizontal line indicates the limit value which was 40 %. The green part of columns indicates that the Member State surpassed this limit, which was desirable for this target.

Graph C4: Fulfilment of the target on tertiary education attainment by Member States in 2019



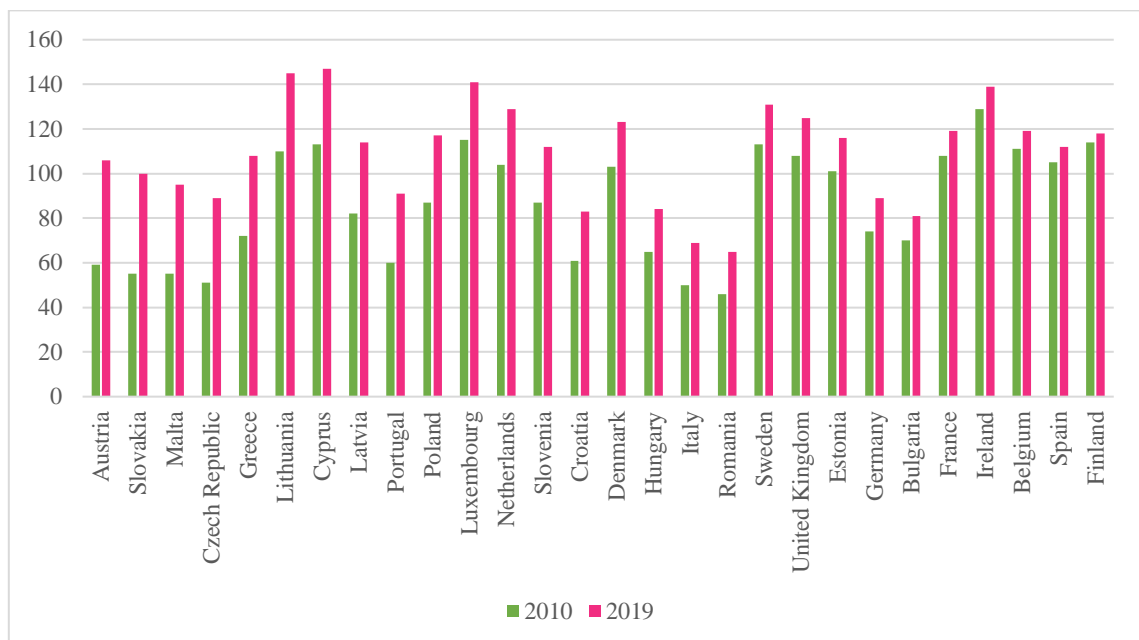
Source: Author

Graph C5: Member States' comparison in the target on tertiary education attainment in 2019 using the Point Method



Source: Author

Graph C6: Change in Member States' fulfilment of the target on tertiary education attainment in 2019 compared to 2010

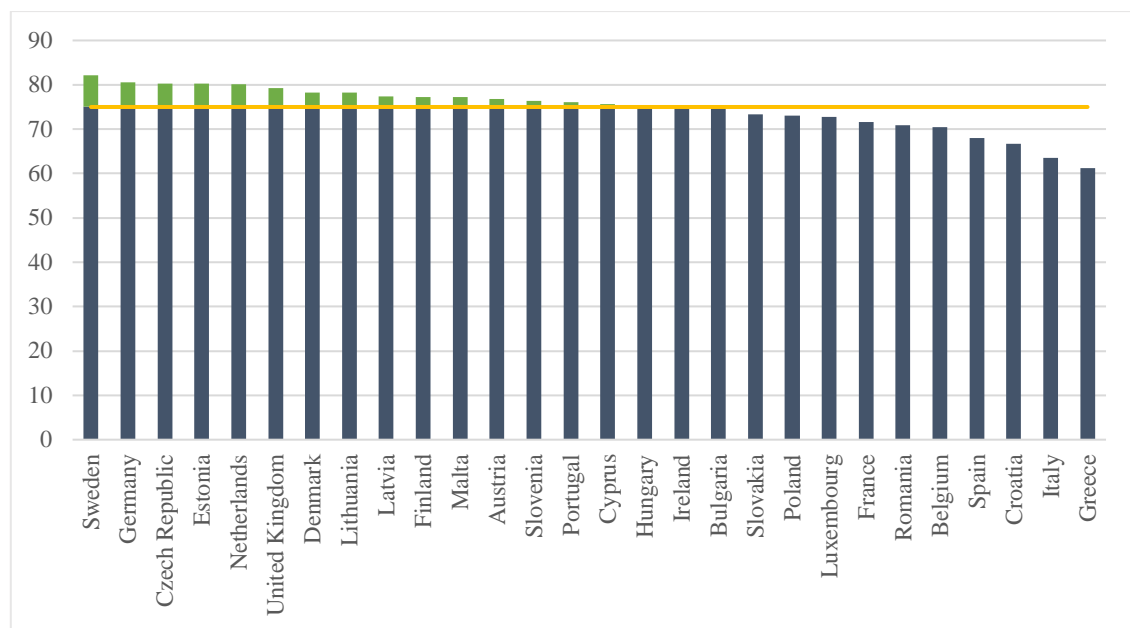


Source: Author

Employment rate – age group 20-64 indicator

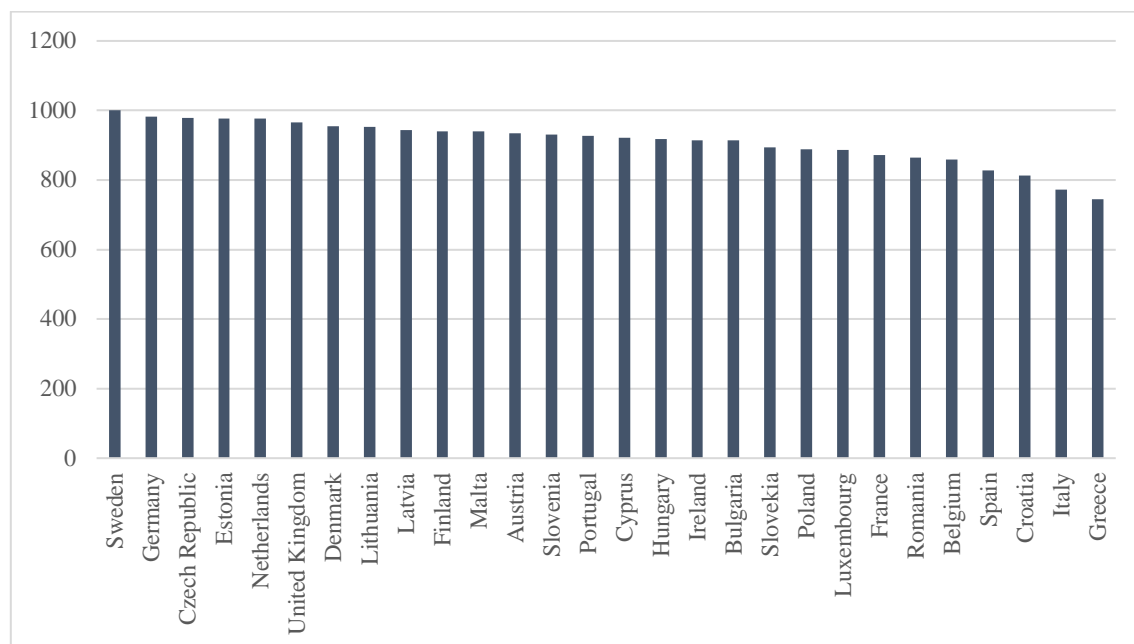
The Graph E7 shows the fulfilment of the target on employment rate – age group 20-64. On the horizontal axis are Member States from the best to the worst and on the vertical are the achieved values of the indicator of each of them. The orange horizontal line indicates the limit value which was 75 %. The green part of columns indicates that the Member State exceeded this limit, which was desirable for this target.

Graph C7: Fulfilment of the target on employment rate – age group 20-64 by Member States in 2019



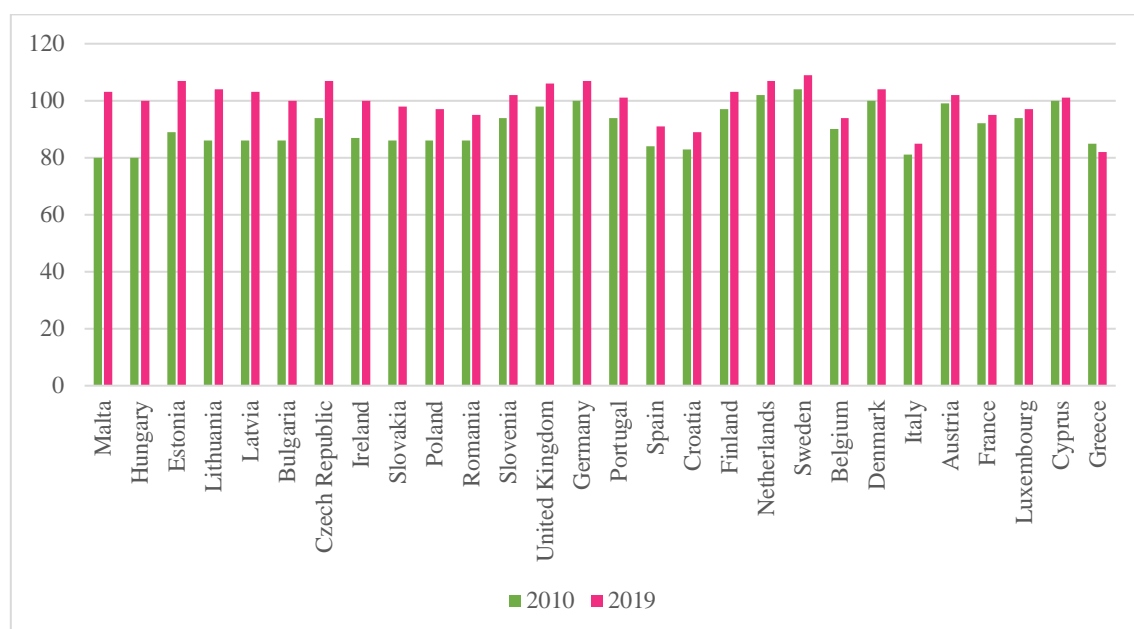
Source: Author

Graph C8: Member States' comparison in the target on employment rate – age group 20-64 in 2019 using the Point Method



Source: Author

Graph C9: Change in Member States' fulfilment of the target on employment rate – age group 20-64 in 2019 compared to 2010



Source: Author