

STUDY

Requested by the CULT committee



Research for CULT Committee – Education and Youth in the European Union - Current challenges and future prospects



Culture and Education



Committee on Culture and Education
Directorate-General for Internal Policies of the Union
PE 629.204 – September 2019

EN

Research for CULT Committee – Education and Youth in the European Union - Current challenges and future prospects

Abstract

This study examines possible scenarios (both aspirational and disruptive) for future developments for the education and youth sectors. It also identifies and assesses the policy implications of these scenarios. Ultimately, the study informs EU policy-makers, in particular MEPs, on policy options and their implications for the education and youth sectors in the EU, and seeks to help them prepare for the scenarios identified (both in terms of facing challenges and embracing opportunities).

This document was requested by the European Parliament's Committee on Culture and Education.

AUTHORS

RAND Europe: Axelle Devaux, Fay Dunkerley, Nadja Koch, Michaela Bruckmayer, William Phillips, Victoria Jordan

Research manager: Pierre Heriard

Project and publication assistance: Lyna Pärt

Policy Department for Structural and Cohesion Policies, European Parliament

LINGUISTIC VERSION

Original: EN

ABOUT THE PUBLISHER

To contact the Policy Department or to subscribe to updates on our work for the CULT Committee please write to: Poldep-cohesion@ep.europa.eu

Manuscript completed in September 2019

© European Union, 2019

This document is available on the internet at:

[http://www.europarl.europa.eu/RegData/etudes/STUD/2019/629204/IPOL_STU\(2019\)629204_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2019/629204/IPOL_STU(2019)629204_EN.pdf)

Further information on research for CULT by the Policy Department is available at:

<https://research4committees.blog/cult/>

Follow us on Twitter: @PolicyCULT

Please use the following reference to cite this study:

Devaux, A., Dunkerley, F., Koch, N., Bruckmayer, M., Phillips, W. and Jordan, V., 2019, Research for CULT Committee – Education and Youth in the European Union, Current challenges and future prospects, European Parliament, Policy Department for Structural and Cohesion Policies, Brussels

Please use the following reference for in-text citations:

Devaux, *et al.*, 2019

DISCLAIMER

The opinions expressed in this document are the sole responsibility of the author and do not necessarily represent the official position of the European Parliament.

Reproduction and translation for non-commercial purposes are authorized, provided the source is acknowledged and the publisher is given prior notice and sent a copy.

CONTENTS

LIST OF ABBREVIATIONS	5
LIST OF BOXES	6
LIST OF FIGURES	6
LIST OF TABLES	6
EXECUTIVE SUMMARY	7
1. INTRODUCTION	13
1.1. Why education and youth policies?	13
1.2. What is the situation in the EU with education and youth employment?	14
1.3. What is the EU policy framework in education and youth?	17
1.4. What are the objectives and approach of this study?	20
2. EVIDENCE RELATED TO CHALLENGES AND ISSUES IN EDUCATION AND YOUTH IN THE EUROPEAN UNION	23
2.1. Social Inclusion	24
2.2. Youth Employment	30
2.3. Skills Mismatch	36
2.4. Migration	42
2.5. New Forms of Communication and Youth Political Participation	46
2.6. Academic Freedom in Higher Education	50
3. FUTURE EDUCATION SCENARIOS FOR THE EUROPEAN UNION	57
3.1. Introduction	57
3.2. Future Scenarios	58
4. POLICY IMPLICATIONS	67
4.1. Policy option 1: Student-centred learning and flexible pathways	67
4.2. Policy option 2: Inclusive digital learning	68
4.3. Policy option 3: Targeted investment in early years	68
4.4. Policy option 4: Socio-emotional development and soft skills	69
4.5. Policy option 5: Strengthening the teaching profession	69
5. REFERENCES	77
ANNEX A. LITERATURE REVIEW METHODOLOGY AND DOCUMENTS REVIEWED	83
A.1. Methodology	83
A.2. List of documents reviewed	84

ANNEX B. SCENARIO METHODOLOGY	87
B.1. Overview	91
B.2. Determining key areas and critical factors	91
B.3. Future projections	93
B.4. Quantitative analysis	97
B.5. Scenario narratives	97
ANNEX C. SCENARIO METHODOLOGY	94
ANNEX D. CASE STUDIES	98

LIST OF ABBREVIATIONS

ABP	Assumption Based Planning
AI	Artificial Intelligence
CEU	Central European University
CEDEFOP	European Centre for the Development of Vocational Training
CULT	European Parliament's Committee on Culture and Education
DG EAC	Directorate General for Education and Culture
DfE	Department for Education (United Kingdom)
ECEC	Early Childhood Education and Care
EEA	European Education Area
EHEA	European Higher Education Area
ESU	European Students Association
EU	European Union
EUA	European University Association
EUYS	European Union Youth Strategy
GDP	Gross Domestic Product
ICT	Information Communications Technology
ISCED	International Standard Classification of Education
MS	Member States
NEET	Not in Education, Training or Employment
SELFIE	Self-reflection on Effective Learning by Fostering the use of Innovative Educational Technologies
STEAM	Science, Technology, Engineering, Arts and Mathematics
STEM	Science, Technology, Engineering and Mathematics
VET	Vocational Educational Training

LIST OF BOXES

Box 1.	Working list of current challenges faced by education and youth policies in the EU	23
Box 2.	Academic freedom and the Central European University	51
Box 3.	Cross-impact analysis	92

LIST OF FIGURES

Figure 1.	EU strategies and policies in the fields of education and youth	18
Figure 2.	Destination Country of Young EU28 migrants, by age class, 2017	33
Figure 3.	Plausible future scenarios should reflect a wide range of possible future states	57
Figure 4.	Factor projections for scenarios	59
Figure 5.	Stages of scenario development	91
Figure 6.	Activity-passivity grid based on cross-impact scoring	93
Figure 7.	ABP helps groups find hidden assumptions and weigh risks	98

LIST OF TABLES

Table 1.	ET2020 targets: benchmark data and achievements as of 2018	14
Table 2.	People aged 16–24 at risk of poverty or social exclusion	25
Table 3.	Youth unemployment rate, 2013–2018 (% of active population aged 15–24)	30
Table 4.	Under- and over-education as well as youth unemployment rate in the EU as of 2010	38
Table 5.	Young People (aged 15–29) not in employment, education or training (NEET) in 2017 (%)	43
Table 6.	Mapping of challenges and issues in education and youth employment to scenario factors	60
Table 7.	Policy options versus future scenarios	70
Table 8.	Search terms and results from systematic literature search	88
Table 9.	Definition of factors affecting the future development of education and youth	94

EXECUTIVE SUMMARY

This study examines possible scenarios (both aspirational and disruptive) for future developments for the education and youth sectors. It also identifies and assesses the policy implications of these scenarios. Ultimately, the study informs EU policy-makers, in particular MEPs, on policy options and their implications for the education and youth sectors in the EU, and seeks to help them prepare for the scenarios identified (both in terms of facing challenges and embracing opportunities).

Background

Education and youth policies are supposed to help prepare for the future of work and society. In this respect, futures studies can provide a snapshot of what the future could look like and what policy options could possibly lead/contribute to building this future.

Aim

The objective of the study is to understand current and future challenges in education and youth policy-making at the EU level, with the view to help support the work of MEPs in preparing legislature for 2019-2024.

Approach

Two main approaches were used to achieve this objective. Firstly, a literature review was undertaken to identify the policy areas of most relevance to both the current education and employment landscape and future developments in EU education and youth policies, as well as evidence of challenges and issues linked to these policy areas. These are summarised as follows:

- Education plays a crucial role in facilitating greater **social inclusion**. Yet, several challenges remain in relation to participation in education as a way to foster social inclusion.
- If social inclusion is linked to education inclusion, it is also closely linked to employment. In spite of the progress made, **youth unemployment** has been one of the main issues of social and economic policies in the last decade and is likely to remain high on the agenda in the future.
- One of the factors that can explain unemployment, at least in parts, is the gap between people's skills and the needs of the labour market – also known as **skills mismatch**.
- There were some challenges – and opportunities – associated with **migration** to Europe, which increased around 2015 and still persists today. These challenges and opportunities concern social, education and labour-market inclusion and are thus relevant to the context of this study.
- Research has recently explored how **“newer” forms of communication** affect democratic participation. Given the role of education in preparing young people not only to find a job, but also to participate in society, the extent to which education has been preparing youth for challenges and opportunities linked to these new forms of communication should be explored.
- In the context of higher education, we agreed to add an emerging issue that is likely to become more prominent in the future – the **autonomy of higher education institutions and threats to academic freedom**.

Secondly, a structured methodology was used to examine the interaction of the key drivers of the education and youth sectors with the wider social, economic and technological factors – and the

uncertainty in the future development of these factors – to develop a range of future education and youth scenarios. We identified four scenarios that represent a wide spectrum of possible futures:

- **Fragmented Europe:** While society and industry have embraced digitalisation, albeit at different rates across the EU, the education system is failing to prepare students for this change and workers are not able to play their role in the labour market, with bad consequences for the economy and society.
- **Aligned Europe:** By 2035 technological innovation and the creation of many high-skilled jobs has led to a booming economy. Education has been at the top of the EU's spending agenda for the past fifteen years, with investment in technology-aided personalised learning creating a model of education that is more accessible to all.
- **Cold feet Europe:** Digitalisation has had a radical effect on the labour market, with fewer workers needed. While people are ready to take on the jobs of today, there is not enough demand for a skilled workforce. While digitalisation was supposed to support growth, the economic situation is not as good as expected, and society is concerned about what the future will bring.
- **Ostrich Europe:** Although education funding is seen as critical, co-operation between Member States is in decline and education and labour market issues are discussed and addressed in isolation. While the economic situation might look good in the short term, and society is not particularly concerned about the future, there are clear indications that the situation is not sustainable.

Figure 1 overleaf summarises the projected evolution of each factor for the scenarios proposed.

Figure 1. Factor projections for each of the four scenarios proposed

Factors	Fragmented Europe	Aligned Europe	Cold-feet Europe	Ostrich Europe
Education population	↔	↑	↑	↔
Education financing	↔	↑	↑	↑
Immigration from outside the EU	↑	↑	↘	↓
Unemployment	↑	↓	↑	↔
Intra-EU labour mobility	↓	↑	↘	↓
Political climate	↓	↑	↘	↘
Business model of education	Market culture	Service culture	Service culture	Service culture
Criminal activities	↑	↓	↔	↓
Social inclusion	More inequalities	Fewer inequalities for younger generations	Fewer inequalities	Fewer inequalities amongst older generations
Structures & principles of EU education systems (co-operation)	↓	↑	↔	↓
Underlying technology trends (automation and AI)	Rollout with regional variation	Strong rollout EU-wide	Rollout with regional variation	Rollout with regional variation
Educational inclusion	Worse attainment for all	Better attainment for all	More re-skilling opportunities for adults	Better compulsory education attainment
Skills match	Poor match	Better match	Better match	Better match in some sectors, but not all
Personalisation	↓	↑	↑	↑
Education institution capacity	Over demand	Over offer	Matched	Over offer
Real GDP growth	↓	↑	↗	↗
Democratic participation and civil engagement	Less engagement by all	Increased engagement driven by youth	Engagement driven by older generations/ nationalism	Moderate engagement by all

Legend:



The outcomes of both the literature review and scenarios were used to deepen the understanding of the implications for education policy-making over the next 10–15 years. The approach takes into account uncertainty in both the education and youth sector and other domains that may have an impact on the education and youth sector. In particular, the scenarios were used as a tool to test the robustness of policy options developed from the literature review.

The study considers five policy options that correspond to possible areas for development of the education and youth policy area. The combination of these policy options is what the study finds would be desirable for future development of education and youth in the EU. However, the study does not intend to present recommendations of what EU and national education authorities should do, but rather to illustrate how policy decisions play out in the different possible futures proposed. Policy options are presented in terms of **potential** policy priorities, which could be integrated in education and training system reforms, or take the form of a policy strategy or programme:

- **Student-centred learning and flexible pathways** to ensure that all learners have access to the type of learning that suits their learning needs, and that all learners can be mobile in the education and training system at any time in their life and career.

- **Inclusive digital learning** to ensure that everyone is included in the move towards digitalisation of learning, and to avoid the risk that those left behind are further excluded from work and society.
- **Targeted investment in early years** to erase/limit the effects of social disadvantage as early as possible in the education and training pathway, and to avoid the perpetuation of disadvantage.
- Focus on **socio-emotional development and soft skills** to prepare today's students to be tomorrow's workers and citizens, whatever the future brings (learning to learn, resilience, communication skills, digital navigation skills, etc.).
- Strengthening **teacher education and training** to make sure teachers are ready for the challenges ahead (with the assumption that teachers are a key differentiator in the implementation of all education and training programmes).

Table 1. Policy options versus future scenarios

Policy option	Scenario 1– Fragmented Europe	Scenario 2 – Aligned Europe	Scenario 3 – Cold-feet Europe	Scenario 4 – Ostrich Europe
1 – Student-centred learning and flexible pathways	Compatible if student-centred learning and flexible pathways only available to those most advantaged learners	Compatible if student-centred learning and flexible pathways for all	Compatible but highly dependent on the labour market demand	Compatible if limited to some sectors
2 – Inclusive digital learning	Compatible if not delivered in an inclusive way	Compatible if delivered in an inclusive way	Compatible, in particular benefitting older workers, provided that these have the right basic skills	Compatible if deployed at all levels
3 – Targeted investment in education, focusing on the early years	Compatible if targeted investment is done too late and not targeting the right level (i.e. too late in the education path, when inequalities are more difficult to erase).	Compatible if targeting early years	Compatible especially if done reactively to adjust labour market needs	Compatible especially if done reactively to adjust labour market needs
4 – Focus on socio-emotional development, inter-disciplinarity and soft skills, including learning to learn	Compatible if done at the expenses of hard skills	Compatible if there is a right balance between hard and soft skills	Compatible of focus on the older generations	Compatible even if focus on the older generations and younger ones, if no right balance between soft and hard skills
5 – Reinforcing the teaching profession	Compatible if not inclusive and market driven	Compatible	Compatible especially if reinforcement is only short term	Compatible but fragility of the teaching profession

1 INTRODUCTION

1.1 Why education and youth policies?

Youth and education are key features of the identity of the European Union and the individuals living in it. Both build the backbone of a fair and resilient European society that sustains competitiveness and inclusiveness. In accordance with Articles 14 and 15 of the Charter of Fundamental Rights of the European Union, European citizens have the right to education, training, and the freedom to pursue employment in the different Member States.¹

The role of education in the lives of children and young people is vital for the acquisition of knowledge and capabilities that can facilitate their personal and professional development, while at the same time ensuring their access and integration into the labour market.² In addition, the role of education has significant importance in the reduction of racism, discrimination, disinformation and educational inequality for young people.^{3,4} Dominant discourse and policy around accessibility and participation of youth in education and training highlights the imperative for investment in human capital and provision of equal opportunities for young people to enter the labour market.⁵ Furthermore, the knowledge-based nature of our society intensifies the need for education and training systems that address the current social, political, financial and demographic changes in Europe by investing in life-long learning initiatives.⁶

Research has demonstrated the benefits of investing in Early Childhood Education and Care for education, labour, social and economic outcomes.⁷ More specifically, evidence indicates that the provision of high quality Early Childhood Education and Care for a long period of time can have positive impacts on cognitive development and educational achievements of children, by increasing their likelihood of acquiring skills that can ensure their future employment.⁸ In addition, having high quality Early Childhood Education and Care is associated with an increase in income and lower welfare reliance in the future life of children, resulting in increased productivity within a society and prevention of youth unemployment.⁹ Furthermore, high quality Early Childhood Education and Care provision leads to improvements in children's physical, social and emotional well-being across Member States.¹⁰ Investing in the implementation of child and family policies as well as early childhood interventions can have a positive impact on the educational and social-life outcomes for young people.¹¹

¹ European Union. (2012). *Charter of Fundamental Rights of the European Union*, 2012/C 326/02, As of 1 March 2019: <https://www.refworld.org/docid/3ae6b3b70.html>

² Müller, W. (2005). *Education and youth integration into European labour markets*. *International Journal of Comparative Sociology*, 46(5-6), 461-485.

³ Raudenbush, S. (2017) *Does schooling increase or decrease social inequality?*. *Focus*. (33)2: 27-28.

⁴ Howarth, C., & Andreouli E. 2014. 'Changing the context': *tackling discrimination at school and in society*. *International Journal of Educational Development*. 41:184-191.

⁵ Müller, W. (2005). *Education and youth integration into European labour markets*. *International Journal of Comparative Sociology*, 46(5-

⁶ Castaño Muñoz, J., Redecker, C., Vuorikari, R., & Punie, Y. (2013). *Open Education 2030: planning the future of adult learning in Europe*. *Open Learning: The Journal of Open, Distance and e-Learning*, 28(3), 171-186.

⁷ Van Belle, J. (2016). *Early Childhood Education and Care (ECEC) and its long-term effects on educational and labour market outcomes*. RAND Europe.

⁸ Janta, B., van Belle, J., & Stewart, K. (2016). *Quality and Impact of Centre-Based Early Childhood Education and Care*. Research Report. RAND Europe.

⁹ Van Belle, J. (2016). *Op cit*.

¹⁰ Janta, B., van Belle, J., & Stewart, K. (2016). *Op cit*.

¹¹ Harte, E., J. Hofman, and A. Sikiaridi. (2016). *The Role of the European Social Fund in Supporting Childcare Provision in the European Union*. RAND Europe.

Finally, research has indicated that public investment in children – and more specifically, investment that focuses on children coming from lower socio-economic backgrounds – can have a positive impact on alleviating and eradicating the adverse effects of intergenerational financial and educational disadvantages.¹² Risks of not investing in education are associated with adverse financial returns to society as a result of higher youth unemployment rates and higher levels of expenditure on social welfare services, resulting in greater social inequality.¹³ Additionally, the provision of opportunities to support young people towards their personal and professional development – and investing in education and training – is crucial in combatting radicalisation, xenophobia and media disinformation in different Member States. This is a vital objective when considering recent societal and political changes in the European Union.¹⁴ Establishing a sense of belonging and creating a shared cultural identity through quality education and training can contribute to social and economic returns for European societies.

1.2 What is the situation in the EU with education and youth employment?

The situation in Europe regarding education and youth is complex; it varies considerably across regions, Member States and demographic groups. Added to this, within the EU, there are multiple ways of measuring the effectiveness and quality of education across Member States. In order to capture a snapshot of the situation across the EU, progress against the Education and Training 2020 (ET2020) benchmarks, set in 2009 and updated via an annual Monitor, demonstrates both the state of education and the issues that are currently within the education landscape (see Table 1). The data in Table 1 presents the ET2020 targets relevant to young people and their progress since the council conclusion on ET2020 in 2009 to the most recent data available on each target.

Table 1. ET2020 targets: benchmark data and achievements as of 2018

Relevant ET2020 targets	Benchmark data 2009 ¹⁵	Achievements as of 2018 ¹⁶
The share of low-achieving 15-year-olds in reading, mathematics and science should be less than 15%. ¹⁷	Reading: 19.5 (EU27) Maths: 22.3 (EU27) Science: 17.7 (EU27)	Reading: 19.7% Maths: 22.2% Science: 20.6% ¹⁸
The share of 30–34 year-olds with tertiary educational attainment should be at least 40%.	32.3%	40.7%
The share of early leavers from education and training should be less than 10%.	14.7%	10.6%
At least 95% of children between 4 years old and the age for starting compulsory primary education should	90.8%	95.4% ¹⁹

¹² OECD (2018). *A Broken Social Elevator? How to promote Social Mobility*.

¹³ Smyth, E., & McCoy, S. (2009). *Investing in education: Combating educational disadvantage*. ESRI.

¹⁴ European Commission (2018). *Education and Training Monitor 2018*.

¹⁵ Eurostat (N.d.). *EU Benchmarks*. As of 8 August 2019: <https://ec.europa.eu/eurostat/web/education-and-training/eu-benchmarks>

¹⁶ Eurostat (2019). *Education and Training 2020*. As of 15 August 2019: <https://ec.europa.eu/eurostat/web/education-and-training/eu-benchmarks>

¹⁷ PISA benchmarks are conducted in a 3-year cycle. The most recent data is taken from 2015.

¹⁸ European Commission (2016). *Education and Training Monitor 2018*.

¹⁹ The most recent data on participation in early childhood education is from 2017.

participate in early childhood education		
The share of employed graduates (20–34 year-olds) having left education and training 1–3 years before the reference year should be at least 82%.	78.3%	81.6%

Between 2010 and 2018, progress on these targets was made on several fronts. In particular, the proportion of children participating in early childhood education rose in 2017, exceeding the target set, while on most other fronts (tertiary education attainment, early school leaving and employment of education and training graduates), there has been an improvement in the direction of the target. The target for the proportion of adults with tertiary educational attainment (ISCED5–8)²⁰ has also been exceeded as of 2018. Given the need for more knowledge-based skills in the workplace and the need to adapt to a changing economy (both features that are associated with higher levels of education), this represents progress against this issue.²¹ The share of early leavers from education and training (i.e. before attaining an upper secondary level of education) has also fallen since 2010. For the share of low-achieving 15-year-olds in reading, mathematics and science, however, the situation has worsened since 2009. It has to be noted that the situation across these targets varies greatly between Member States.²²

However, there remain substantial differences between Member States and EU regions regarding progress towards all benchmarks. Some examples include:

- As of 2017, almost half of the Member States (12 in total) did not reach the early childhood education target (95% of children aged between 4 and the age of starting compulsory primary education). Some countries (Croatia, Slovakia, Bulgaria, Greece and Romania) do not guarantee a legal entitlement to Early Childhood Education and Care.²³ The employment rate of recent graduates varies considerably between Member States, with recent tertiary graduates still at a disadvantage in 2017 in several countries (including Italy, Greece, Croatia and Spain).
- There are significant regional disparities between the proportion of early leavers from education and training across the EU: the southern and south-eastern Member States are particularly likely to have high rates of early leavers.

Within the Member States and across the EU, there are also substantial differences and inequalities between different demographic groups, including based on gender, region and migration backgrounds:

- Men are more likely to leave education and training early than women: the benchmark of only 15% of early leavers was reached by men in just 14 Member States compared to women in 21 Member States. This gender gap is particularly large in Spain, Latvia and Estonia.

²⁰ *International Standard Classification of Education*. As of 20 August 2019: <http://uis.unesco.org/en/topic/international-standard-classification-education-isced>

²¹ European Commission (2018). *Education and Training Monitor 2018*.

²² Eurostat (2019). *Education and Training 2020*. As of 15 August 2019: <https://ec.europa.eu/eurostat/web/education-and-training/eu-benchmarks>

²³ Eurostat (2018). *Participation in early childhood education by sex*. As of 14 August 2019: https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=sdg_04_30&plugin=1

- The proportions of students who are early leavers of education and training are far higher in the rural or island regions of countries that otherwise have much lower rates (including Bulgaria, Hungary and France).
- Native-born 15-year-olds obtain much higher achievements than first generation immigrant students in reading, maths and science in almost all countries. In some countries, this difference is up to 35–40 percentage points (Finland, Austria, Sweden, Germany and France). This can be attributed to language barriers: in countries where the gap is smaller, this can be attributed to immigrants frequently knowing the native language (or a very similar language already), as in the case of United Kingdom, Czechia and Portugal.²⁴ In addition, a recent study has found that in countries where more immigrant students report a sense of belonging, the achievement gap narrows considerably.²⁵

In recent years, youth unemployment has been an ongoing primary concern for national and EU policymakers in the areas of education and youth: a high unemployment rate indicates a mismatch between the outcomes of the education and training system and the needs of the labour market. Youth unemployment in the EU peaked at 23.9% in 2013 and although it has since decreased, falling to 14.9% in December 2018, it is still double that for adults (6.6%).²⁶ Similarly, the rate of young people not in education, training or employment (NEETs) has also seen a decline, peaking at 20.1% in 2013 and gradually decreasing to 17.2% (in 2017).²⁷ Again, there are considerable differences in both rates between Member States. For example, while Spain had a youth unemployment rate of 32.7% in December 2018, the rate for Germany was just 6%.²⁸ In Italy, the Member State with the highest rate of NEETs, there were four times more NEETs than in Sweden in 2017.²⁹ Furthermore, much like progress against the benchmarks above, the NEET rate remains high in certain Member States (particularly those in the south and south-eastern regions of Europe) and across certain demographic groups (including men, those with an immigrant background and those from a rural area).³⁰

Those with lower levels of educational attainment (ISCED 0–2) are still more at risk of ending up NEET than the rest of the youth population, particularly so when compared to those with tertiary education (ISCED5–8).³¹ As a result, overall, when the level of education increases, the probability of becoming a NEET decreases, meaning education is a viable way of protecting against unemployment and exclusion.³² As well as being an important factor in whether a young person engages in employment later in life, education plays a role in ensuring the quality of this employment.³³

At present, the largest group of NEETs consists of young people with an upper secondary level of education (ISCED3–4). The existence of this so-called ‘missing middle’ demonstrates that the issue of

²⁴ European Commission (2018). *Education and Training Monitor 2018*.

²⁵ OECD (2018). *The Resilience of Students with an Immigrant Background: Factors That Shape Well-Being*.

²⁶ Eurostat (2019). Unemployment statistics. As of 15 August 2019: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Unemployment_statistics

²⁷ For more information about the term NEETs, see Quintini, G., & Martin, S. (2006). *Starting well or losing their way? The position of youth in the labour market in OECD countries* (No. 39). OECD Publishing.

²⁸ Eurostat (2019), *Unemployment Statistics*. Eurostat Explained. As of 11 March 2019: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Unemployment_statistics#Youth_unemployment

²⁹ Eurostat (2018), *Statistics on young people neither in employment nor in education or training*. Statistics Explained. As of 11 March 2019: https://ec.europa.eu/eurostat/statistics-explained/index.php/Statistics_on_young_people_neither_in_employment_nor_in_education_or_training#Young_people_neither_in_employment_nor_in_education_or_training

³⁰ European Commission (2018). *Education and Training Monitor 2018*.

³¹ Eurofound (2016), *Exploring Diversity of NEETs*.

³² Eurofound (2016), *op cit*.

³³ European Parliament (2018), *Ensuring high-quality job creation from EU funding programmes: How can the best practice of Horizon 2020 be better integrated into other programmes (ESF, Youth Guarantee, Globalisation Fund)? Study*

youth unemployment stems from whether their education is suitable for succeeding in the labour market. For example, entrepreneurial competencies are increasingly important for succeeding in today's labour market.³⁴ The European Commission estimates that those who participated in entrepreneurship education at school were more likely to start companies after leaving school (15–20%) than those who did not (3–5%).³⁵ However, only half of the EU population aged 15 years and above felt that their school education helped them to develop entrepreneurial competencies.³⁶

1.3 What is the EU policy framework in education and youth?

1.3.1 Strategies and Frameworks

To ensure a coherent response to issues young people face across the EU, the new EU Youth Strategy (EUYS) 2019–2027 has recently been approved by the Council, continuing from the EYUS 2010–2018. Both strategies were designed to contribute to the overarching objectives of creating more and equal opportunities for young people in education and the labour market and promoting active citizenship, social inclusion and solidarity in young people. The new Strategy emphasises the need for a comprehensive and coordinated approach towards improving the situation for young individuals across Europe. The EUYS 2019–2027 constitutes a guiding framework for EU activities and cooperation, with objectives, principles, and priorities in the following three areas of action: engage, connect and empower. Under these actions, it proposes new activities that involve a clear approach to monitoring and mobilising targeted funding for the youth sector. To ensure coordinated communication towards young individuals and a successful partnership between stakeholders, it is intended to establish an EU Youth Coordinator. Further, it proposes a participative governance approach, encouraging youth to shape policies within the EU context through the EU Youth Dialogue. An overview of some of the previous and current EU policies and strategies, which address the areas of education and youth, can be found in Figure 1. An interim evaluation of the previous EU Youth Strategy (2010–2018) found that no member state addressed all fields of action and that, due to the EU-wide economic circumstance and high levels of youth unemployment, there was substantial focus in activities on issues of employment, education and training, to the detriment of other issues.

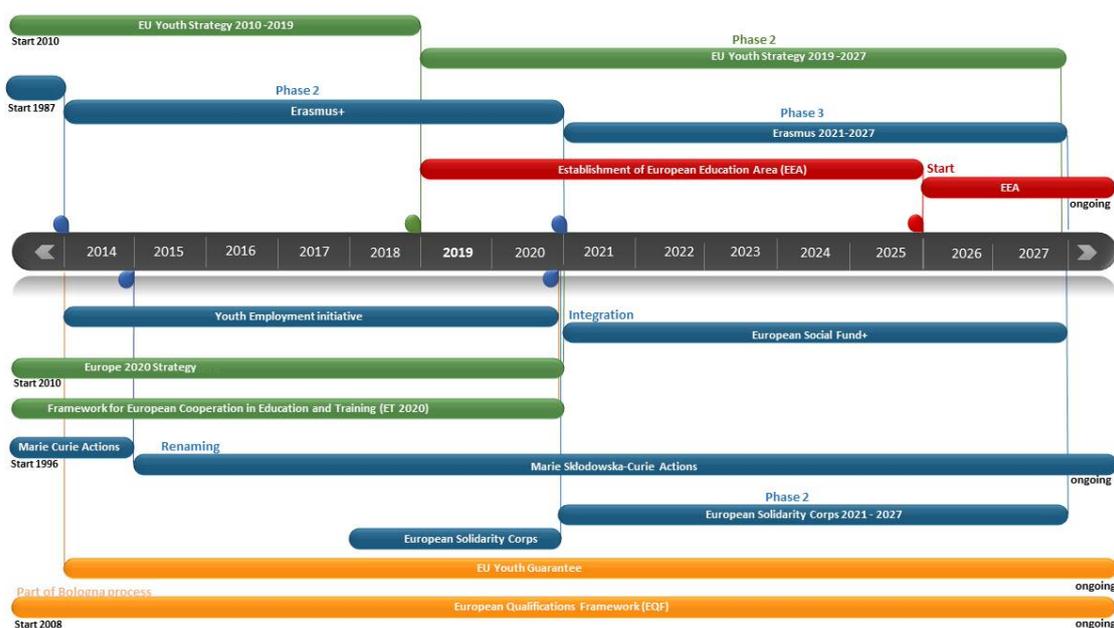
While the new iteration has narrowed its focus in response, given the ongoing effects of the economic crisis across the continent, challenges remain about maintaining the broadness of the Strategy. The evaluation raised other concerns too about the level of youth involvement in developing the strategy, awareness of the EUYS among youth organisations, difficulty monitoring activities, and the dual focus of the Strategy, which led to recommendations that have now been taken into account for the new youth strategy. While this too has been incorporated into the new strategy, the extent to which young people will be involved and to which the Strategy will be able to effect change will still depend on the engagement levels from Member States in a time where ongoing labour market challenges still mean that youth employment remains the greatest focus of many authorities.

³⁴ European Commission (2013). *Entrepreneurship 2020 Action Plan. Reigniting the entrepreneurial spirit in Europe*.

³⁵ European Commission (2013), *op cit*.

³⁶ European Commission. *Entrepreneurship education*, As of 11 March 2019: https://ec.europa.eu/growth/smes/promoting-entrepreneurship/support/education_en

Figure 1. EU strategies and policies in the fields of education and youth



Source: RAND Europe, 2019

The Education and Training 2020 (ET2020) strategic framework was developed across the EU in 2010 to maximise cooperation in education and training from early childhood to adult vocational training and higher education, by acting as a forum for developing and exchanging best practice. To do so, it supports the achievement of several benchmarks by 2020, and reports on progress towards these annually. Otherwise, the framework is implemented through a range of tools and instruments, including expert working groups, a range of peer activities hosted by Member States (peer learning activities, peer reviews and peer counselling), the provision of funding for activities and projects (through the Erasmus+ programme) and other associated reference tools, approaches and consultations. An interim evaluation in 2014 suggested that the varied objectives and benchmarks set by the ET2020 have limited the framework’s ability to actually drive change in all areas and suggested more streamlined objectives to priority areas would be more appropriate.³⁷ As we have seen in Section 1.2 while some objectives are near achievement, considerable variation remains with weaknesses in particular Member States and demographic groups.

In an attempt to address this issue, “Recommendations on Investing in Children: Breaking the Cycle of Disadvantage” was launched in 2013.³⁸ It contains policy guidance for Member States in regards to children around “three pillars: access to resources, access to quality services and child participation.”³⁹ In the following years, the European Social Network investigated Member States’ progress by conducting a review of 14 EU countries and their children’s policies. In regard to inclusive education, the report identified the following key findings. First, while countries had made positive progress

³⁷ European Union (2019). As of 15 August 2019: <https://publications.europa.eu/en/publication-detail/-/publication/e8f0ed5b-5a8e-11e9-9151-01aa75ed71a1>

³⁸ 2013/112/EU: Commission Recommendation of 20 February 2013 Investing in children: breaking the cycle of disadvantage. <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32013H0112>

³⁹ European Social Network (2016). *Investing in Children’s Services, Improving Outcomes: Executive Summary*.

towards the creation of legislation geared towards fostering inclusion of children with disabilities or special needs, more schools need to put this into action.⁴⁰ Second, in some countries, an increase in ethnic segregation could be detected.⁴¹ This was for example facilitated through policies that impacted families' possible school choices, but ethnic segregation within schools was also observed. The inclusiveness of children from Roma families needed improvement.⁴² A report from Eurochild points out that despite clear objectives set out in past strategies, challenges remain and Member States' attention drifts to other issues. Past strategies have been quite "fragmented" and "piecemeal" and there is concern around increasing welfare cuts hindering children's social inclusion.⁴³ The report urges that investment in children must be a priority for Member States.⁴⁴

1.3.2 Funding mechanisms

Further recent activities of the European Commission also involve funding mechanisms for youth and education. This includes the proposal for Erasmus+ 2021–2027 in May 2018. This constitutes a follow-on proposal for Erasmus+ 2014–2020, which initially summarised a number of sector-specific funding programmes and constitutes DG for Education and Culture's (DG EAC) main mechanism programme dedicated to education, training, youth and sport. The new proposal for a renewed Erasmus+ programme has the aim of ensuring additional financial support and offering mobility opportunities for up to 12 million participants.⁴⁵

The midterm evaluation of Erasmus+ (covering 2014–2020) and the impact assessment both agreed that the programme is generally successful and beneficial, but recommended that steps be taken to ensure Erasmus+ is more accessible to those with special needs or from disadvantaged backgrounds, recognising that the programme remains mainly available to those at higher education institutions.⁴⁶ Other recommendations included strengthening sectors that performed well despite little funding (including those relating to entrepreneurship and vocational training), lightening the administrative burden, and increasing opportunities for smaller organisations. While the proposal for Erasmus+ 2021–2027 includes actions to reduce the administrative burden and increase inclusivity, these often fall within the remit of the Member State rather than the EU authority, and so their effectiveness remains to be seen.⁴⁷

Additional funding of up to €1.26 billion has been proposed for the European Solidarity Corps for the period of 2021–2027, which would enable a larger number of young individuals to make a meaningful contribution to solidarity within Europe, through volunteering, traineeships and jobs.⁴⁸ Challenges identified by the ex-ante evaluation of this programme include cooperation and coordination with other actors (including at a national level), slow uptake and community building and knowledge sharing.⁴⁹

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² Ibid.

⁴³ Eurochild (2015). *Is Europe Doing Enough to Invest in Children. 2015 Eurochild Report on the European Semester.* https://www.eurochild.org/fileadmin/public/05_Library/Thematic_priorities/02_Child_Poverty/Eurochild/Eurochild_SemRep_FINAL.pdf

⁴⁴ Ibid.

⁴⁵ European Parliament (2017). *Erasmus 2021–2027. The Union programme for education, training, youth and sport.*

⁴⁶ European Commission (2018). *Mid-term evaluation of the Erasmus+ programme (2014-2020).*

⁴⁷ European Parliament (2017). *Erasmus 2021-2027. The Union programme for education, training, youth and sport. Briefing*

⁴⁸ European Commission (2018). *EU Budget for the Future: European Solidarity Corps beyond 2020.*

⁴⁹ European Commission (2018). *Ex ante evaluation accompanying the document Proposal for a Regulation of the European parliament and of the Council establishing the European Solidarity Corps programme*

The EU is currently working towards the establishment of the European Education Area (EEA) by 2025. Through the establishment of the EEA, the EU aims to strengthen cross-border mobility, ensuring that young individuals can look for and receive high quality education, training and work within Europe.⁵⁰ Within the realm of cross-border mobility, it also intends to strengthen Erasmus+ and facilitate the recognition of diplomas. It follows the pillars of life-long learning and promotion of the use of technology within education.⁵¹

1.3.3 Modernising moves

There have been a few specific actions of the EU regarding education and the changing world, in relation to both new economic and social realities.

The Entrepreneurship 2020 Action Plan was developed in response to the challenges brought by the recent economic crisis, aiming to unlock Europe's entrepreneurial potential by, for example, improving entrepreneurial education and training.⁵² In addition, the Digital Education Action Plan from the European Commission includes initiatives designed to support people, educational institutions and education systems to adapt to rapid digital change by better use of digital technology and improved digital skills in students. These initiatives include supporting schools to access high-speed broadband connections, promoting a self-assessment tool for schools on the use of technology for teaching and learning '**Self-reflection on Effective Learning by Fostering the use of Innovative Educational Technologies**' (SELFIE) and running a public awareness campaign about media literacy and online safety.⁵³

Beyond specific skills, the Council Recommendation on common values, inclusive education and the European dimension of teaching⁵⁴ was adopted in May 2018 and aims to strengthen the Union, national democracies and social cohesion. It has four objectives: promoting common values; fostering more inclusive education; encouraging a European dimension of teaching; and supporting teachers and teaching. While this is a recommendation rather than a strategy, this commits the Commission to supporting Member States in implementing provisions as well as assessing and monitoring them through other monitors.

1.4 What are the objectives and approach of this study?

The objective of the study is to understand current and future challenges in education policy-making at the EU level, with the view to help prepare and support the work of MEPs in the 2019–2024 legislatures.

Two main approaches were used to achieve this objective. Firstly, a literature review was undertaken to identify the policy areas of most relevance to both the current educational and employment landscape and future developments in EU education and youth policies. Evidence on the challenges and issues in these policy areas is presented in Chapter 2.

⁵⁰ European Commission (n.d.). *Towards a European Education Area*. As of 11 March 2019: https://ec.europa.eu/education/education-in-the-eu/european-education-area_en

⁵¹ European Commission (n.d.). *Op cit*.

⁵² European Commission (n.d.). *Projects and studies on entrepreneurship education*. As of 11 March 2019: https://ec.europa.eu/growth/smes/promoting-entrepreneurship/support/education/projects-studies_en; European Commission (n.d.). *The Entrepreneurship 2020 Action Plan*. As of 11 March 2019: https://ec.europa.eu/growth/smes/promoting-entrepreneurship/action-plan_en

⁵³ European Commission (2018). *Future of Learning Package*. As of 11 March 2019: https://ec.europa.eu/commission/news/future-learning-package-2018-jan-17_en

⁵⁴ Council of the European Union (2018). *Council Recommendation of 22 May 2018 on promoting common values, inclusive education, and the European dimension of teaching*. ST/9010/2018/INIT. OJ C 195, 7.6.2018, p. 1–5

Secondly, having achieved a good understanding of the education and youth employment landscape from the literature review, a structured methodology was used to examine the interaction of the key drivers of the education and youth sectors with the wider social, economic and technological factors – and the uncertainty in the future development of these factors – to develop a range of future education scenarios. The resulting scenarios are multi-faceted, internally consistent and representative of the wide spectrum of possible futures at the EU level in 2035. These scenarios are presented in Chapter 3, together with case studies that illustrate the implications of these scenarios for Member States.

The outcomes of both the literature review and scenarios were used to deepen the understanding of the implications for education policy-making over the next 10–15 years, taking account uncertainty in both the education sector and other domains that may have an impact on the education sector but are outside the influence of education policy. In particular, the scenarios were used as a tool to test the robustness of policy options developed from the literature review and in conjunction with policy makers. Policy implications are provided in Chapter 4.

2 EVIDENCE RELATED TO CHALLENGES AND ISSUES IN EDUCATION AND YOUTH IN THE EUROPEAN UNION

This chapter presents an overview of the main challenges and issues in education and youth in the European Union. These challenges and issues were identified by the RAND Europe education team, drawing on the team's experience of conducting research in early childhood education and care, school effectiveness, higher education, skills and employability, and also on the effects of new technologies on education, work and society. Box 1 below presents the issues we proposed to research in the context of this study, in agreement with the European Parliament. These issues are explored in turn in the following sub-section.

Box 1. Working list of current challenges faced by education and youth policies in the EU

Education plays a crucial role in facilitating greater **social inclusion**, which in turn brings greater life chances. Yet, several challenges remain in relation to participation in education as a way to foster social inclusion.

If social inclusion is linked to education inclusion, it is also closely linked to employment. In spite of the progress made, **youth unemployment** has been one of the main issues of social and economic policies in the last decade and is likely to remain high on the agenda in the future.

One of the factors that can explain unemployment, at least in parts, is the gap between people's skills – as 'produced' by the education and training systems – and the needs of the labour market – also known as **skills mismatch**. Skills mismatch often reflects a division between the education and employment at both policy/strategic and implementation/operational levels.

There were some challenges – and opportunities – associated with **migration** to Europe, which increased around 2015 and still persists today. These challenges and opportunities concern social, education and labour-market inclusion and are thus relevant to the context of this study.

'**Newer**' forms of **communication** affect how society works and how people interact. Research has recently explored how these new forms of communication affect democratic participation. Given the role of education in preparing young people, not only to find a job, but also to fully participate in society, the extent to which education has been preparing youth to challenges and opportunities linked to these new forms of communication should be explored.

In the context of higher education, we agreed to add an emerging issue that is likely to become more prominent in the future – the **autonomy of higher education institutions and threats to academic freedom**.

The evidence presented in this chapter comes from a review of the literature related to these issues and challenges undertaken in May 2019 (see Annex A for the literature review methodology and list of documents reviewed). It covers six main themes: social inclusion, youth employment, skills mismatch, migration, new forms of communication (and potential implications for youth political participation), and academic freedom in Higher Education. The key findings for each theme are presented in turn below, and the literature review methodology is described in 0 A.

2.1 Social Inclusion

Key Findings

- In 2017, 21.8 million young people (or 28% of the EU population aged 16–29) were at risk of poverty or social exclusion in the EU. Young women, people with disabilities, and people with immigrant backgrounds are at higher risk of social exclusion.
- Education and continuing engagement in the labour market are seen as key vehicles for fostering social inclusion. Research shows that social exclusion has its roots in poor socio-economic conditions early in life.
- This means that prevention is key. Investing in high quality early childhood education has been found to help address consequences associated with children’s poor socio-economic background, and has been found to yield the greatest return on investment.

2.1.1 Scope and scale of the Issue

Fostering social inclusion is a priority of the EU youth policy.⁵⁵ Social inclusion refers to individuals’ abilities to participate in society regardless of who they are or where they come from – both in terms of physical location and as well as socio-economic circumstances. Specific definitions of the concept can vary. Some people prefer to talk in terms of social exclusion, rather than inclusion.⁵⁶ Social exclusion, especially in connection with childhood and youth, frequently refers to poverty and other barriers or forms of deprivation that prevent people from accumulating certain forms of capital that are deemed necessary for living a safe and healthy life.⁵⁷ The concept of social inclusion is broader in that it aims to capture the interconnected and multifaceted social, cultural and economic consequences of social exclusion. While social exclusion is frequently used in the literature, social inclusion features nowadays more dominantly in EU discourse.⁵⁸ In relation to young people, social inclusion includes processes around individual self-realisation within a society, acceptance and recognition by social institutions, and integration and participation in society.⁵⁹ The latter can be realised through a variety of avenues, including study, employment, volunteering or any other channel that enables young people to be able to establish connections and be involved in their communities.⁶⁰

Despite a broad shared understanding of the concept of social inclusion across the European Union, conditions vary across Member States.⁶¹ In 2017, 21.8 million young people (or 28% of the population aged 16–29) between the ages of 16–29 were at risk of poverty or social exclusion in the EU.⁶² Data on youth between the ages of 16–24 across the 28 Member States in 2017 (see Table 2) shows that the lowest shares of young people at risk of social exclusion or poverty were observed in Czechia (12.2%) and Slovakia (16.3%). In comparison, the highest shares can be found in Bulgaria (38.9%) and Romania (35.7%); the EU 28 average is 29%. Young women appear to be at a slightly higher risk than men.⁶³ This

⁵⁵ Eurofound (2015). *Social Inclusion of Young People*. Luxembourg. (p.9).

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ Kovacheva, S. (n.d.). *EU–CoE Youth Partnership Policy Sheet Social Inclusion*.

⁶⁰ Ibid.

⁶¹ Eurofound (2015). *Social Inclusion of Young People*. Luxembourg. (p. 11).

⁶² EUROSTAT. (October 2018). *Young People - Social Inclusion*. As of 21 June 2019: https://ec.europa.eu/eurostat/statistics-explained/index.php/Young_people_-_social_inclusion.

⁶³ Eurostat (2019). *People at risk of poverty or social exclusion by age and sex* (dataset ilc_peps01).

also holds true for young people with disabilities and for young people with an immigrant background.⁶⁴

Young people who are not in employment, education, or further training (NEETs), who have low educational achievement and who encounter difficult transitions from education into the labour market are also at particular risk of social exclusion.⁶⁵

Table 2. People aged 16–24 at risk of poverty or social exclusion

Country/Gender	Total	Young Men	Young Women
European Union – 28 countries	29.0	28.0	30.1
Austria	19.2	17.6	21
Belgium	25.5	23.4	27.7
Bulgaria	44.8	49	40.4
Croatia	25.9	25.7	26
Cyprus	26.6	27.7	25.4
Czechia	14.3	13	15.7
Denmark	35.7	30.3	41
Estonia	25	21.4	28.7
Finland	26.4	25.8	27.1
France	25.6	26.9	24.3
Germany	23.6	20.3	27.5
Greece	45.4	44.5	46.3
Hungary	30.3	30.3	30.3
Ireland	33.6	28.4	39.5
Italy	34.8	34.5	35
Latvia	25.7	24.9	26.4

⁶⁴ Eurofound (2015). *Social Inclusion of Young People*. Luxembourg.

⁶⁵ Ibid.

Lithuania	33.3	33.2	33.3
Luxembourg	31.7	34.1	29.4
Malta	19.4	22.4	16.3
Netherlands	29.5	30	28.9
Poland	26	25.5	26.6
Portugal	30.9	31.7	30.1
Romania	43.7	44.5	42.8
Slovakia	19.8	18.7	21
Slovenia	15.7	13.8	17.8
Spain	34.7	33.6	35.8
Sweden	30.2	31.7	28.7
United Kingdom	28.3	26.3	30.3

Source : Eurostat (2019), dataset ilc_peps01

2.1.2 The causes and consequences of poor social inclusion

Low levels of social inclusion in early life and youth can impact all areas of life – including socio-economic standing, personal relationships, and health – and can last a lifetime. Prolonged disengagement from education and/or the labour market is also a key factor in hindering social inclusion. The following paragraphs will review these consequences in more detail.

Education is seen as a key mechanism for facilitating social inclusion. It is one of the key vehicles in bringing about advancements in modern societies, including fostering economic growth, social cohesion and personal development.⁶⁶ Research suggests that better educated people tend to be “more productive and innovative, more likely to be economically active, earn higher wage[s] and experience higher wage growth over their working lives”, which can have implications for countries’ economic performance and growth.⁶⁷ Furthermore, it has been shown that better educated people enjoy better living conditions in a myriad of ways, including better health. There also seems to be a connection between people’s educational attainment and their degree of socially responsible behaviour, as well as political and civic participation.⁶⁸ Education is also seen as a significant factor in

⁶⁶ Budria, S. (2011). *Are Educational Mismatches Responsible for the "Inequality Increasing Effect" of Education?* *Social Indicators Research* 102(3): 409-437.

⁶⁷ Ibid.

⁶⁸ Ibid.

reducing social inequality, which can, for example, be achieved through better wage distribution.⁶⁹ There is a link between education, inclusion and citizenship – “schools are key places in which young people learn about and act upon their future roles, responsibilities and rights as citizens.”⁷⁰ Schools also socialise and teach children to understand and appreciate differences, which should help foster tolerance, an important element for diverse societies.⁷¹

Protracted youth unemployment can have long-lasting consequences, including on lifetime earnings, risk of future unemployment, and health, well-being and job satisfaction.⁷² The literature speaks of “scarring effects” that can persist more than 20 years later and can include reduced lifetime earnings, increased risk of future unemployment, poorer health and well-being and reduced job satisfaction.⁷³ There are also societal and personal consequences of extended disengagement from the labour market and education. People are less likely to engage in ‘normal’ everyday life. They are less able to participate in social and cultural activities and may face rejection from others because of their lower societal status. This may affect young people’s physical and mental health, creating “psychological distress such as feelings of loneliness, powerlessness, restlessness, and anxiety and depression”.⁷⁴ In addition, people who are excluded might be more likely to engage in socially disruptive or illegal activities.⁷⁵ Having a criminal record makes future disengagement more likely, especially if the criminal record started early in life.⁷⁶ This discussion highlights the interdependent dynamics that characterise the issue of social inclusion.

When aiming to foster social inclusion, it is important to remember that disengagement from education and/or the labour market often has its roots in poor socio-economic conditions experienced early in life. It is well evidenced that the socio-economic circumstances in which a child grows up impacts on both their success later in life – economically and socially – as well as on their health.⁷⁷ This remains an area of concern, as an estimated 24.9% of children in the European Union were estimated to be “at risk of experiencing poverty or social exclusion” in 2017.⁷⁸

Lavrijsen and Nicaise (2015) identify a strong relationship between poverty, parents’ level of education and early school leaving.⁷⁹ The authors explain: “having low-educated parents drastically increases the odds of becoming a school drop-out in every single European country” – albeit with variation across Member States.⁸⁰ Further, they show that “children from low-educated parents are far more likely to drop out when poverty is high.”⁸¹ This means that in order to reduce inequalities in educational

⁶⁹ Bessant, J. and R. W. Watts (2014). ‘Cruel optimism’: a southern theory perspective on the European Union’s Youth Strategy, 2008–2012. *International Journal of Adolescence and Youth* **19**(sup1): 125-140.

⁷⁰ Rutkowski, D. et al. (2014). *Inclusive schooling: fostering citizenship among immigrant students in Europe*. *Intercultural Education* **25**(4): 269-282.

⁷¹ Ibid.

⁷² O’Reilly, J., W. Eichhorst, A. Gábos, K. Hadjivassiliou, D. Lain, J. Leschke, S. McGuinness, L. M. Kureková, T. Nazio, R. Ortlieb, H. Russell and P. Villa (2015). *Five Characteristics of Youth Unemployment in Europe: Flexibility, Education, Migration, Family Legacies, and EU Policy*. *SAGE Open* **5**(1): 2158244015574962.

⁷³ Ibid.

⁷⁴ Eurofound (2015). *Social Inclusion of Young People*. Luxembourg. (p. 12).

⁷⁵ Ibid. (p. 12).

⁷⁶ Ibid. (p. 13).

⁷⁷ Eurostat. 2019. *Children at risk of poverty or social exclusion*. As of 8 August 2019: https://ec.europa.eu/eurostat/statistics-explained/index.php/Children_at_risk_of_poverty_or_social_exclusion#General_overview

⁷⁸ Ibid. (p. 2)

⁷⁹ Lavrijsen, J. and I. Nicaise (2015). *Social Inequalities in Early School Leaving: The Role of Educational Institutions and the Socioeconomic Context*. *European Education* **47**(4): 295-310. (p. 308)

⁸⁰ Ibid. (p. 295)

⁸¹ Ibid. (p. 308)

attainment, solutions need to go beyond the structure of the education systems and should also focus on responding to the children and young people's socio-economic conditions.⁸² The importance of young people's background in early leaving and in becoming a NEET has been observed by several others (for example see Gillies and Mifsud 2016⁸³; Thompson 2011⁸⁴).

2.1.3 Responses to the issue

In order to best address the inter-generational 'inheritance' of low educational attainment, investment in the early years of children's lives is paramount.⁸⁵ A large body of evidence suggests that interventions targeted towards the earlier years are beneficial, since that period of life is regarded as crucial to people's development and can greatly influence social, economic, and labour outcomes later in life.⁸⁶ High quality early education has been found to be associated with an improvement of "cognitive-academic outcomes up to at least the age of 15."⁸⁷ Early childhood education is seen as an area of investment with high potential for fostering social inclusion of children.

High quality early education has been found to improve "cognitive-academic outcomes up to at least the age of 15."⁸⁸ Because of the greater impacts, investments in the quality of early education have been found to yield higher returns than interventions implemented later.⁸⁹ Past initiatives, including the 2013 "Recommendations on Investing in Children", focused on increasing the number of available early childhood education and care (ECEC) centres to assist parents to get back into work and therefore contribute to the economic well-being of the family.⁹⁰ The debate is now shifting more towards ensuring "high quality" early childhood education, as this is seen to be particularly effective for fostering social inclusion for disadvantaged children.⁹¹

A particular point of debate has been what constitutes *quality*. The European Union does not currently offer any official, systematic measurement of quality.⁹² In addition, "the context in which ECEC is offered varies markedly according to the specific cultural, social and educational conditions of each member state."⁹³ It is also important to note that different stakeholders have different definitions of what quality means. As Smyth et al. (2014) point out "[d]eveloping inclusive learning environments is a complex process". [...] While there is apparently broad agreement at an international level about what inclusive learning environments should look like, there is considerably less agreement about how this can be achieved at national and local community level."⁹⁴ Stakeholder engagement in devising settings and

⁸² Ibid. (p. 308)

⁸³ Gillies, D. and D. Mifsud (2016). *Policy in transition: the emergence of tackling early school leaving (ESL) as EU policy priority*. *Journal of Education Policy* **31**(6): 819-832.

⁸⁴ Thompson, R. (2011). *Individualisation and social exclusion: the case of young people not in education, employment or training*. *Oxford Review of Education* **37**(6): 785-802.

⁸⁵ European Social Network (2016). *Investing in Children's Services, Improving Outcomes: Executive Summary*.

⁸⁶ Ibid.

⁸⁷ Paananen, M., K. Kumpulainen and L. Lipponen (2015). *Quality drift within a narrative of investment in early childhood education*. *European Early Childhood Education Research Journal* **23**(5): 690-705. (p. 690)

⁸⁸ Ibid. (p. 690)

⁸⁹ Ibid.

⁹⁰ Janta, B., J. van Belle and K. Stewart (2016). *Quality and Impact of Centre-based Early Childhood Education and Care*. RAND Europe.

⁹¹ Ibid.

⁹² Ibid.

⁹³ Ibid.

⁹⁴ Smyth, F. et al. (2014). *Inclusive education in progress: policy evolution in four European countries*. *European Journal of Special Needs Education* **29**(4): 433-445.

policies, as well as determining measurements, is therefore crucial. Quality can have particular local and contextual meaning, so including local perspectives is imperative.⁹⁵

Broadly speaking, outcomes of ECEC attendance fall into the following categories: educational and labour market outcomes; economic outcomes (although these are highly contested, since they can only be measured later in life and many factors are in play, including increased earnings but also lower crime rates); and social outcomes (referring “to non-cognitive child benefits, such as improved health and well-being”), Paananen et al. (2015) explain that current investments aimed at improving or ensuring quality in early childhood education tends to be overly “calculative, modernistic and instrumental”.⁹⁶ However, it has been shown “that much of the effectiveness of early childhood interventions comes from boosting non-cognitive skills and fostering motivation”.⁹⁷

As found by Hennis et al. (2017), one of the primary predictors of students discontinuing their education, in both formal and non-formal settings, is disengagement.⁹⁸ In determining the best approaches for addressing larger scale issues, such as the ones outlined above and in previous sections – including reduced school leaving and increased citizenship and participation – initiatives that focus on facilitating young people’s motivation and engagement might be key for fostering social inclusion.

There are several factors that need to be in place in order to achieve the outcomes of ECEC attendance. Schools need to be a “safe, open, and welcome space, free from racism or discrimination”.⁹⁹ These measures are seen to help foster an inclusive atmosphere, an important ingredient in which is positive relationships, both student-teacher, as well as student-student.¹⁰⁰ In addition, curricula need to be designed in a way that is accessible to all students, including marginalised students.¹⁰¹ Schools also need to ensure “equitable access to resources and services within the school.”¹⁰² An example of a measure aimed at helping to address this issue is Austria’s operational FEAD programme, under which disadvantaged families with children may apply for a free basic educational materials, including school bag, stationary and books for up to a value of 70 euros.¹⁰³

⁹⁵ Paananen, M., K. Kumpulainen and L. Lipponen (2015). *Quality drift within a narrative of investment in early childhood education*. European Early Childhood Education Research Journal **23**(5): 690-705. (p. 693)

⁹⁶ Ibid.

⁹⁷ Paananen, M., K. Kumpulainen and L. Lipponen (2015). *Quality drift within a narrative of investment in early childhood education*. European Early Childhood Education Research Journal **23**(5): 690-705. (p. 693)

⁹⁸ Hennis, T. A. et al. (2017). *Engaging at-risk youth through self-directed learning*. Italian Journal of Educational Technology **25**(1): 18-30.

⁹⁹ Rutkowski, D. et al. (2014). *Inclusive schooling: fostering citizenship among immigrant students in Europe*. Intercultural Education **25**(4): 269-282.

¹⁰⁰ Ibid.

¹⁰¹ Ibid.

¹⁰² Ibid.

¹⁰³ Stewart, K. and B. Janta (2018). *Tackling Child Poverty and Social Exclusion in Europe. How Funding Mechanisms Can Help*. Luxembourg, European Commission.

2.2 Youth employment

Key Findings

- Youth unemployment remains high in the EU, with 3.282 million people under the age of 25 unemployed across all EU Member States. This constitutes an area of concern because of its prolonged negative ‘scarring effects’, which may last for two decades. It also leads to ‘brain drain’, where youth migrate to other EU countries in search of better opportunities.
- The situation challenges the prominent belief that more education will lead to higher employment. Transitions from education to employment are increasingly difficult and diversified, which impacts earning later in life.
- Strong transition system could serve as a possible option, with UK and Germany referenced as good examples.

2.2.1 Scope and scale of the issue

There has been progress in recent years towards many of the ET2020 benchmarks. The proportion of 20–24 year olds in education and training has increased and the proportion of 20–24 year olds who are neither in education nor training (NEET) fell from 41.2% in 2000 to 34.2% in 2011¹⁰⁴. Despite these achievements, youth unemployment remains high. Whereas Eurostat data for unemployment shows that in March 2019 general unemployment in the European Union (EU-28) was at its lowest since early 2000, the picture looks very different for youth unemployment.¹⁰⁵

According to the latest Eurostat data, 3.282 million people under the age of 25 are unemployed across all EU Member States.¹⁰⁶ Table 3 presents the youth unemployment rate (% of active population aged 15–24) between 2013 and 2018. This represents a youth unemployment rate of 15.6%, compared to 17.8% in the previous year for seasonally adjusted data. EU countries with the lowest rates of youth unemployment include Germany (6.2%), the Czechia (6.7%) and the Netherlands (7.2%). Member states with the highest rate of youth unemployment are Greece (39.9%), Spain (34.3%) and Italy (32.2%).¹⁰⁷

Table 3. Youth unemployment rate, 2013–2018 (% of active population aged 15–24)

Country/Year	2013	2014	2015	2016	2017	2018
European Union – 28 countries	26.3	24.4	22.2	20.2	17.8	15.6
Austria	9.7	10.3	10.6	11.2	9.8	9.4
Belgium	23.7	23.2	22.1	20.1	19.3	15.8

¹⁰⁴ Bessant, J. and R. W. Watts (2014). ‘Cruel optimism’: a southern theory perspective on the European Union’s Youth Strategy, 2008–2012. *International Journal of Adolescence and Youth* **19**(sup1): 125-140.

¹⁰⁵ EUROSTAT. (April 2019). *Unemployment Statistics*. As of 22 August 2019: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Unemployment_statistics#Youth_unemployment_trends.

¹⁰⁶ Ibid.

¹⁰⁷ Ibid.

Bulgaria	28.4	23.8	21.6	17.2	12.9	12.7
Croatia	49.9	44.9	42.3	31.8	27.2	23.7
Cyprus	38.9	36	32.8	29.1	24.7	20.2
Czechia	18.9	15.9	12.6	10.5	7.9	6.7
Denmark	13	12.6	10.8	12	11	9.3
Estonia	18.7	15	13.1	13.4	12.1	11.9
Finland	19.9	20.5	22.4	20.1	20.1	17
France	24.9	24.2	24.7	24.6	22.3	20.7
Germany	7.8	7.7	7.2	7.1	6.8	6.2
Greece	58.3	52.4	49.8	47.3	43.6	39.9
Hungary	26.6	20.4	17.3	12.9	10.7	10.2
Ireland	26.7	23.4	20.2	16.8	14.4	13.8
Italy	40	42.7	40.3	37.8	34.7	32.2
Latvia	23.2	19.6	16.3	17.3	17	12.2
Lithuania	21.9	19.3	16.3	14.5	13.3	11.1
Luxembourg	16.9	22.3	16.6	19.1	15.5	13.8
Malta	12.7	11.7	11.6	10.7	10.6	9.2
Netherlands	13.2	12.7	11.3	10.8	8.9	7.2
Poland	27.3	23.9	20.8	17.7	14.8	11.7
Portugal	38.1	34.7	32	28.2	23.8	20.3
Romania	23.7	24	21.7	20.6	18.3	16.2
Slovakia	33.7	29.7	26.5	22.2	18.9	14.9
Slovenia	21.6	20.2	16.3	15.2	11.2	8.8

Spain	55.5	53.2	48.3	44.4	38.6	34.3
Sweden	23.6	22.9	20.4	18.9	17.8	16.8
United Kingdom	20.7	17	14.6	13	12.1	11.3

Source: Eurostat (2019). Dataset: *une_rt_m*

Despite the acknowledged measurement challenges,¹⁰⁸ there is consensus that young people face significant challenges regarding unemployment, underemployment and poverty.¹⁰⁹ The impacts of the 2008 economic crisis on youth, and in particular on youth unemployment rates, were significant.¹¹⁰ There have been reports of the rate of youth unemployment reaching more than 40% in some countries, including Croatia, Greece and Spain.¹¹¹ However, the 2008 crisis did not create the situation, but rather exacerbated it.¹¹² As pointed out by Eichhorst and Neder (2014), “youth unemployment is mostly structural”.¹¹³ Moreover, the policies that followed the crisis, which included market deregulation and austerity policies, re-enforced “pre-existing labour market inequalities” that particularly affect young people.¹¹⁴

2.2.2 The cause and consequences of youth unemployment

The previous section on social inclusion highlighted the severe and long-lasting impacts of prolonged youth unemployment, including reduced lifetime earnings, increased risk of future unemployment, and poorer health, well-being and reduced job satisfaction, all of which can last for more than 20 years.¹¹⁵

In an attempt to improve their chances and opportunities, the current generation of youth has engaged in more migration within the EU than previous generations affected by crisis. The increased number of people with tertiary education emigrating from European countries that were particularly affected by the crisis has become known as *brain drain*. This has been a cause for “grave concern” in the

¹⁰⁸ Sources reporting data on youth unemployment caution that it can be difficult to measure. This is because some stats might report the youth who are in full-time education as “inactive” because they are not participating in the labour market. Yet, some youth in full-time education might actually be participating in the labour market (e.g. through part-time employment) but might not be captured in employment statistics because they are students. Statistics are therefore most frequently reported as a ratio. (for more information see: O’Reilly, J., W. Eichhorst, A. Gábos, K. Hadjivassiliou, D. Lain, J. Leschke, S. McGuinness, L. M. Kureková, T. Nazio, R. Ortlieb, H. Russell and P. Villa (2015). *Five Characteristics of Youth Unemployment in Europe: Flexibility, Education, Migration, Family Legacies, and EU Policy*. *SAGE Open* 5(1): 2158244015574962.)

¹⁰⁹ Bessant, J. and R. W. Watts (2014). ‘Cruel optimism’: a southern theory perspective on the European Union’s Youth Strategy, 2008–2012. *International Journal of Adolescence and Youth* 19(sup1): 125-140. (p. 128).

¹¹⁰ O’Reilly, J., W. Eichhorst, A. Gábos, K. Hadjivassiliou, D. Lain, J. Leschke, S. McGuinness, L. M. Kureková, T. Nazio, R. Ortlieb, H. Russell and P. Villa (2015). *Five Characteristics of Youth Unemployment in Europe: Flexibility, Education, Migration, Family Legacies, and EU Policy*. *SAGE Open* 5(1): 2158244015574962.

¹¹¹ Tomic, C. H. and K. Taylor (2018). *Youth unemployment, the brain drain and education policy in Croatia: A call for joining forces and for new visions*. *Policy Futures in Education* 16(4): 501-514.

¹¹² Eichhorst, W. and F. Neder (2014). *Youth Unemployment in Mediterranean Countries*. *IZA Policy Papers*, IZA - Institute of Labor Economics 80.

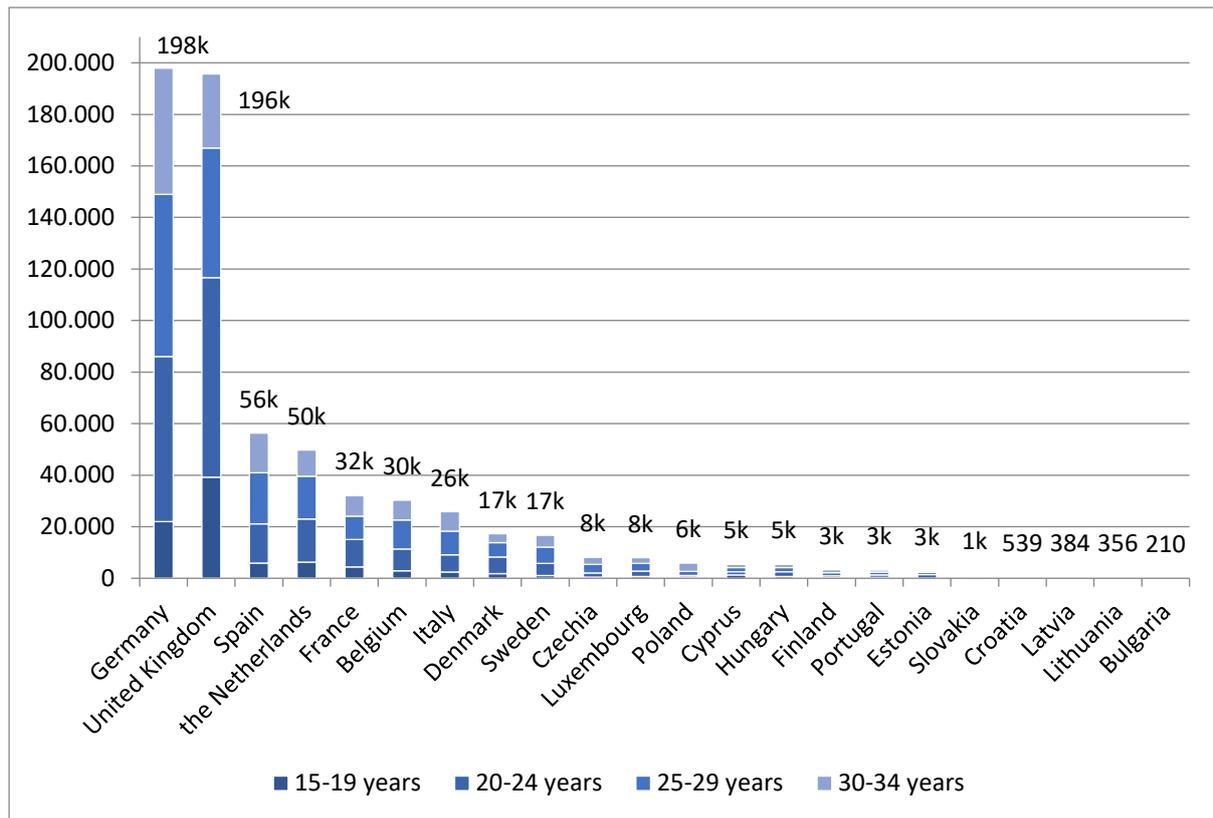
¹¹³ Ibid.

¹¹⁴ Kretsos, L. (2014). *Youth policy in austerity Europe: the case of Greece*. *International Journal of Adolescence and Youth* 19(sup1): 35-47.

¹¹⁵ O’Reilly, J., W. Eichhorst, A. Gábos, K. Hadjivassiliou, D. Lain, J. Leschke, S. McGuinness, L. M. Kureková, T. Nazio, R. Ortlieb, H. Russell and P. Villa (2015). *Five Characteristics of Youth Unemployment in Europe: Flexibility, Education, Migration, Family Legacies, and EU Policy*. *SAGE Open* 5(1): 2158244015574962.

countries of origin as they see their “brightest and best” leave, which some see as a threat to the origin countries’ development.¹¹⁶ It has been suggested that the drop in youth unemployment that was recorded in 2016 for the first time since the start of the recession in Croatia, Greece and Spain, was not necessarily due to increased employment, but rather due to emigration.^{117, 118} As shown in Figure 2, more than half of highly trained youth who migrated to another EU country in 2017 went to either Germany or the UK.¹¹⁹

Figure 2. Destination Country of Young EU28 migrants, by age class, 2017



Source: data from Eurostat migr_imm1ctz, as of 8 August 2019. No data available for Austria, Greece, Ireland, Malta, Slovenia and Romania. For the United Kingdom the age unit is ‘aged in completed years’ instead of ‘age reached during the year’.

These trends challenge the conventional wisdom that more education of young people will lead to more employment or protect against unemployment.¹²⁰ Increased secondary and higher education participation rates have been a central focus of past EU education and youth strategies, and successes towards achieving this objective have been recorded across Europe.¹²¹ The situation in Ireland in the early 2010s illustrates this point well. In 2012, 35.5% of people aged 30–34 had completed higher

¹¹⁶ Tomic, C. H. and K. Taylor (2018). *Youth unemployment, the brain drain and education policy in Croatia: A call for joining forces and for new visions*. *Policy Futures in Education* 16(4): 501-514.

¹¹⁷ Ibid.

¹¹⁸ Ibid.

¹¹⁹ Cavallini, S., R. Soldi, M. A. Utma and B. Errico (2018). *Addressing Brain Drain: The Local and Regional Dimension*.

¹²⁰ Bessant, J. and R. W. Watts (2014). ‘Cruel optimism’: a southern theory perspective on the European Union’s Youth Strategy, 2008–2012. *International Journal of Adolescence and Youth* 19(sup1): 125-140.

¹²¹ Ibid. (p. 127).

education in the EU, with Ireland reporting the highest rate (50%).¹²² At the same time, however, Ireland also reported high youth unemployment rates.¹²³ At the same period in Greece, a significant portion of unemployed young people held university degrees.¹²⁴ Croatia is another EU member state that recorded progress towards achieving the ET2020 while still recording high youth unemployment. Despite having one of the lowest levels of early leavers in the European Union (2.8% compared to the EU average of 11%), the country has one of the highest youth unemployment rates.¹²⁵ In addition, only 62.6% of young people who completed higher education degrees found employment within one to three years of completion. As explained by Tomic and Taylor (2018), a “higher education degree has, therefore, not provided a ticket to a job.”¹²⁶ Lodovici and Semenza (2012) express a similar sentiment in their research for the European Commission, stating that “the protection effect of higher education [against unemployment and underemployment] has been eroded by the crisis.”¹²⁷

A frequently cited factor for persistent un- or under-employment in the EU is a skills mismatch: educational institutions and training programmes do not equip people with the skills that the national labour markets require¹²⁸ (an area that will be explored in section 2.3). This is said to make the transition from education to employment for young people particularly difficult.¹²⁹ The transition for young adults from education into stable employment is becoming “increasingly blurred and diversified”, due to the “high share of graduates ending up unemployed or in non-standard employment.”¹³⁰ [NB: this also affects measurement of youth unemployment rates]. The ratio of part-time casual workers to full-time workers “has been steadily increasing”, including in countries such as Sweden and the Netherlands, which have high secondary and tertiary education participation rates.¹³¹ Contributing factors to this include the pervasive market flexibility, which makes it harder to secure stable employment.¹³² This trend has also been attributed to the market deregulation and austerity policies that followed the 2008 crisis in many EU countries. Increased austerity may impact employers’ recruitment decisions,¹³³ making it harder for young people to secure permanent full-time employment contracts.¹³⁴ This precariousness is also becoming a growing reality for middle-class

¹²² Ibid.

¹²³ Ibid. (p. 131)

¹²⁴ Mitrakos, T., P. Tsakoglou and I. Cholezas (2010). *Determinants of youth unemployment in Greece with an emphasis on tertiary education graduates*. *Economic Bulletin* **26**: 21-62.

¹²⁵ Tomic, C. H. and K. Taylor (2018). *Youth unemployment, the brain drain and education policy in Croatia: A call for joining forces and for new visions*. *Policy Futures in Education* **16**(4): 501-514.

¹²⁶ Bessant, J. and R. W. Watts (2014). Op cit.

¹²⁷ Lodovici, M. S. and R. Semenza (2012). *Precarious Work and High-Skilled Youth in Europe*.

¹²⁸ Tomic, C. H. and K. Taylor (2018). “Youth unemployment, the brain drain and education policy in Croatia: A call for joining forces and for new visions.” *Policy Futures in Education* **16**(4): 501-514. (p. 502).

¹²⁹ Refrigeri, L. and G. Aleandri (2013). *Educational policies and youth unemployment*. *3rd World Conference on Learning, Teaching and Educational Leadership*. H. F. Odabasi. Amsterdam, Elsevier Science Bv. **93**: 1263-1268. (p. 1263).

¹³⁰ Bessant, J. and R. W. Watts (2014). ‘Cruel optimism’: a southern theory perspective on the European Union’s Youth Strategy, 2008–2012. *International Journal of Adolescence and Youth* **19**(sup1): 125-140. Also: O’Reilly, J., W. Eichhorst, A. Gábos, K. Hadjivassiliou, D. Lain, J. Leschke, S. McGuinness, L. M. Kureková, T. Nazio, R. Ortlieb, H. Russell and P. Villa (2015). *Five Characteristics of Youth Unemployment in Europe: Flexibility, Education, Migration, Family Legacies, and EU Policy*. *SAGE Open* **5**(1): 2158244015574962. p. 2

¹³¹ Bessant, J. and R. W. Watts (2014). Op cit. (p. 129)

¹³² O’Reilly, J., et al. (2015). Op cit.

¹³³ Papadopoulos, O. (2016). *Economic crisis and youth unemployment: Comparing Greece and Ireland*. *European Journal of Industrial Relations* **22**(4): 409-426.

¹³⁴ Kretsos, L. (2014). *Youth policy in austerity Europe: the case of Greece*. *International Journal of Adolescence and Youth* **19**(sup1): 35-47.

young professionals.¹³⁵ A prominent example is the poor employment conditions experienced by early-career researchers in higher education.¹³⁶

Starting wages have reduced, causing the gap in earnings between younger and older workers, which contributes to wage inequality, to increase.¹³⁷ Widening income inequality¹³⁸ and low economic growth¹³⁹ have been cited as contributing factors to persistent youth unemployment and underemployment in the European Union.

2.2.3 Responses to the issue

The UK and Germany have been cited as 'good examples' for addressing this issue.¹⁴⁰ Key lessons from these countries include strong transition systems, including vocational education and training opportunities, ideally offering more diverse routes into work.¹⁴¹ Educational systems are encouraged to develop more work-related curricula.¹⁴² There is a need to provide training opportunities where students can gain work experience, as well as career counselling and contact with employers.¹⁴³ This should include early exposure to the workplace through work experience and internship placements.¹⁴⁴ It has been suggested that countries with education or economic policies that place a similarly strong focus on vocational training as they do on participation in education are able to help ease the transition from education into employment and are therefore able to address youth unemployment.¹⁴⁵ However, it has been found that very broadly targeted, class-room based programmes "generally have the least success".¹⁴⁶ It is important that opportunities can be targeted and are flexible enough to fit individual needs as much as possible. This becomes even more apparent for disadvantaged youth or low-skilled youth. A recent report found that "for low-skilled young people, programmes that combine training with periods of work experience, contact with employers and assistance with job search, and lead to recognised and relevant qualifications, are more likely to be effective."¹⁴⁷

Similarly, success for disadvantaged youth tends to be greatest in cases where in-depth counselling is available to support educational and employment needs.¹⁴⁸

¹³⁵ MacDonald, R. and A. Giazitzoglu (2019). *Youth, enterprise and precarity: or, what is, and what is wrong with, the 'gig economy'?* *Journal of Sociology*: 1440783319837604.

¹³⁶ Ibid.

¹³⁷ Gebel, M. and J. Giesecke (2016). *Does Deregulation Help? The Impact of Employment Protection Reforms on Youths' Unemployment and Temporary Employment Risks in Europe*. *European Sociological Review* **32**(4): 486-500.

¹³⁸ Bessant, J. and R. W. Watts (2014). Op cit.

¹³⁹ Tomic, C. H. and K. Taylor (2018). *Youth unemployment, the brain drain and education policy in Croatia: A call for joining forces and for new visions*. *Policy Futures in Education* **16**(4): 501-514. (p. 504).

¹⁴⁰ Refrigeri, L. and G. Aleandri (2013). *Educational policies and youth unemployment*. *3rd World Conference on Learning, Teaching and Educational Leadership*. H. F. Odabasi. Amsterdam, Elsevier Science Bv. **93**: 1263-1268. (p. 1263).

¹⁴¹ Lanning, T. and K. Rudiger. (2012). *Youth Unemployment in Europe: Lessons for the UK*. As of 22 August 2019: https://www.ippr.org/files/images/media/files/project/2012/07/Youth-unemployment-in-Europe-briefing_11July2012.pdf.

¹⁴² Refrigeri, L. and G. Aleandri (2013). Op cit. (p. 1264).

¹⁴³ Department for Business Innovation & Skills (2013). *Government Evidence on EU Action to Tackle Youth Unemployment. Report to the EU Subcommittee on the Internal Market, Infrastructure and Employment*.

¹⁴⁴ Lanning, T. and K. Rudiger. (2012). *Youth Unemployment in Europe: Lessons for the UK*. As of 22 August 2019: https://www.ippr.org/files/images/media/files/project/2012/07/Youth-unemployment-in-Europe-briefing_11July2012.pdf.

¹⁴⁵ Refrigeri, L. and G. Aleandri (2013). *Educational policies and youth unemployment*. *3rd World Conference on Learning, Teaching and Educational Leadership*. H. F. Odabasi. Amsterdam, Elsevier Science Bv. **93**: 1263-1268. (p. 1264).

¹⁴⁶ Department for Business Innovation & Skills (2013). Op cit.

¹⁴⁷ Ibid.

¹⁴⁸ Ibid.

2.3 Skills Mismatch

Key Findings

- Young people are particularly likely to be affected by skills mismatch, both in terms of being over- or under-educated.
- The literature suggests that approaches involving multiple stakeholders – e.g. educational institutions, businesses and third-sector organisations – would be best suited to address this issue.
- The literature also emphasises the need for facilitating life-long learning and mobility to reduce the skills mismatch.

2.3.1 Scope and scale of the issue

As introduced in section 2.2 above, increasing attention is being paid to the issue of *skills mismatch*. While the term can be defined and measured in different ways, it can be broadly understood as a lack of correspondence between the skills and qualifications of available workers and the demands of roles or employers.¹⁴⁹ It is discussed in different ways (e.g. qualification mismatch, labour shortages, skill gaps or shortages¹⁵⁰) and debates around methods and measurements are common in the literature.¹⁵¹

Despite the persistent vagueness of the concept¹⁵², the reality of the issue across EU Member States, and for young people in particular, is clear. The issue can be divided into the following main trends. First, despite existing rates of unemployment, employers across the European Union report that they are struggling to fill certain roles.¹⁵³ According to 2013 data from the European Company survey four in ten European companies (39%) expressed difficulties in finding candidates to fill roles.¹⁵⁴ This usually applies to high-skilled posts. Some Member States have therefore created ‘shortlists’ of occupations in which hard-to-fill vacancies are common. These Member States include Austria, Bulgaria, France, Italy and Spain.¹⁵⁵

In contrast, the second observed trend regarding skills mismatch is over-qualification.¹⁵⁶ According to Eurobarometer data from 2014, almost a quarter (23%) of EU citizens felt that “their education or

¹⁴⁹ Muñoz de Bustillo Llorente, R., S. Sarkar, R. Sebastian and J.-I. Antón (2018). *Educational mismatch in Europe at the turn of the century: Measurement, intensity and evolution*. *International Journal of Manpower* **39**(8): 977-995.

¹⁵⁰ McGuinness, S., K. Poulidakas and P. Redmond (2017). *How Useful is the Concept of Skills Mismatch?* *Discussion Paper Series*.

¹⁵¹ A popular way of measurement is Job Analysis: “a systematic evaluation of the tasks performed in a given occupation is done in order to assign a skill/educational level to each occupation. According to the JA approach, those workers doing that job with more or less level of education than the level required for that job are considered as over- or under-educated, respectively.” Data for this approach is not available for all countries (Muñoz de Bustillo Llorente et al., 2018). Another option is self-assessment where workers are asked about their perceptions.

¹⁵² McGuinness, S., K. Poulidakas and P. Redmond (2017). *How Useful is the Concept of Skills Mismatch?* *Discussion Paper Series*.

¹⁵³ Reymen, D., M. Gerard, P. de Beer, A. Meierkord, M. Paskov, V. Di Stasio, V. DDonlevy, I. Atkinson, A. Majulec, U. Famira-Muehlberger and H. Lutz (2015). *Labour Market Shortages in the European Union*. (p. 37).

¹⁵⁴ Cedefop (2018). *Insight into Skill Shortages and Skill Mismatch. Learning from Cedefop's European Skills and Jobs Survey*. (p. 64).

¹⁵⁵ Nikolov, A., Nikolova, D. Ganev, P. and Aleksiev, Y. (2018). *Skills Mismatches - An Impediment to the Competitiveness of EU Businesses*. (p. 64).

¹⁵⁶ It should be noted that there are a range of factors that influence measurement of over-education and it is therefore difficult to gain a comprehensive picture across the whole of the EU. Results will vary based on labour market demands for highly educated workers, as well as the quality of available education. Some of the most common methods include job analysis, where tasks assigned to a job are compared to the skills and qualifications of persons performing the role. Another frequently used method is self-assessments where employees are asked to report their perceptions (for more information, see for example Muñoz de Bustillo Llorente, R., S. Sarkar, R. Sebastian and J.-I. Antón (2018). *Educational mismatch in Europe at the turn of the century: Measurement, intensity and evolution*. *International Journal of Manpower* **39**(8): 977-995. (p. 4)).

training did not give them the skills to find a job that matches their qualifications"¹⁵⁷. It should be noted, that there are a range of factors that influence measurement for over-education and it is therefore difficult to gain a comprehensive picture across the whole of the EU. Results will vary based on labour market demands for highly educated workers, as well as the quality of available education.¹⁵⁸

2.3.2 Causes and consequences of skills mismatch

There seems to be a disconnect between what people are being educated and trained to do, the skills employers want and expect people to have, and what the labour market demands. Over-education also implies that the supply of graduates exceeds the demand for skilled jobs.

The literature identifies a range of reasons for this skills mismatch. Structural factors are apparent, including the fact that society evolves and changes faster because of more rapid globalisation and technological advancements, making it difficult for education and training frameworks to adapt. Other factors include demographic changes, such as increased ageing of the population, and migration. CEDEFOP (the European Centre for the Development of Vocational Training) foresees increased digital and technological advances as one of the key challenges of the skills mismatch. Their report warns that EU societies need to ensure that they "do not experience high rates of technological unemployment and job/wage polarisation".¹⁵⁹ There is evidence of a "digital divide" – women and girls, older people, lower-educated, unemployed or inactive people, and people employed in low-skilled jobs do not receive the necessary exposure to keep up with developments and risk being left behind.

Young people under the age of 24 are particularly susceptible to skills mismatch. This seems to be the case for both under- and over-education, and it can be exacerbated by poor economic conditions. As highlighted in the section on youth unemployment, existing evidence identifies skills mismatch as a major contributing factor to youth unemployment. It contributes to delaying or diverting young people's transition from education to employment. But despite the concerning trends regarding youth unemployment across the European Union, there are an estimated 2 million entry-level jobs remained vacant across Member States in 2012. Particularly affected sectors included: hospitality, health care, transport, education, real estate, manufacturing and construction.

It is estimated that in some Member States more than 50% of youth are either under- or over-educated for the job market. Member States with higher youth unemployment also seem to record higher rates of skills mismatch among youth. Table 4 (see below) provides some interesting data.

¹⁵⁷ Euractiv (2014). "Eurobarometer: Education and Training Don't Match Available Jobs." As of 12 August 2019: <https://www.euractiv.com/section/social-europe-jobs/news/eurobarometer-education-and-training-don-t-match-available-jobs/>.

¹⁵⁸ Muñoz de Bustillo Llorente, R. et al. (2018). Op cit. (p. 4).

¹⁵⁹ CEDEFOP (2018). *Insights into skill shortages and skill mismatch*. Luxembourg: Publications Office. Cedefop reference series; No 106.

Table 4. Under- and over-education as well as youth unemployment rate in the EU as of 2010
(source: Floreani 2014, OECD 2019)

Country	Youth over-education	Youth under-education	Youth unemployment rate
Austria	8.7*	31.1*	9.5
Belgium	18.5	24.0	22.4
Bulgaria	14.7	18.1	n/a
Croatia	13.3	6.3	n/a
Cyprus	33.2	10.8	n/a
Czechia	6.8	18.2	18.4
Denmark	8.9	38.6	14.0
Estonia	16.5	23.7	32.8
Finland	10.6	18.4	21.1
France	14.6	16.6	22.6
Germany	4.7	44.7	9.8
Greece	15.3	18.1	33.0
Hungary	10.4	5.5	26.4
Ireland	18.2	16.6	28.2
Italy	5.3**	35.9**	27.9
Latvia	17.4*	13.5*	36.0
Lithuania	16.5	13.3	35.8
Luxembourg	3.8**	39.6**	14.3
Netherlands	5.9	45.0	11.1
Poland	11.6	23.2	23.7
Portugal	9.0	36.6	22.8
Romania	14.5*	29.4*	n/a
Slovakia	11.7	27.5	33.5
Slovenia	14.4	20.2	14.7
Spain	12.7	35.8	41.5
Sweden	11.1	19.7	24.8
United Kingdom	24.0	25.5	19.9

Source: *2008 data, **2004 data, Original data: ILO

The phenomenon has negative impacts on employers and employees, as well as the larger economy as a whole.¹⁶⁰ Skills mismatch is “one of the main reasons for labour market shortages and bottlenecks”.¹⁶¹ Over-education has a negative effect on individual wages and levels of job satisfaction.¹⁶² Further, over-education means that resources invested in education have been put to poor use – there is less societal return of investment since people are not participating in the labour market as hoped.¹⁶³

2.3.3 Responses to the issue

2.3.3.1 The need for multiple-stakeholder approaches

Suggestions on how to best address the issue are still evolving in the literature. The absence of agreed definitions and ways of measuring skills mismatch makes this challenging. Insights and data vary based on individual Member States’ labour-market demands, as well as on the quality of available education.¹⁶⁴ While research into the existence of a skills mismatch is increasing, few studies focus on policy responses and their effects.¹⁶⁵ Existing evidence emphasises the need for country-specific approaches that can be adopted to the “specifics of different labour markets, educational systems and institutional frameworks.”¹⁶⁶ This is an important consideration for policy formulation as “[o]ne-size-fits-all politics are unlikely to be effective as EU countries tend to suffer from different forms of the problem.”¹⁶⁷

Demands have been made for reforms that facilitate greater integration between education and labour-market demands.¹⁶⁸ To facilitate this objective, ‘government-wide’ responses that include authorities, employers and other stakeholders¹⁶⁹ are deemed to be the most effective.¹⁷⁰ Social partners and/or non-governmental organisations might play a key role in facilitating more practice-based education. They might be able to offer specialist knowledge of the changing domestic labour market requirements that can improve the effectiveness of proposed solutions.¹⁷¹ Stakeholder collaboration might also help address the question of which actors are best placed to lead on skills mismatch responses. There have been calls for the private sector and employers to take on a stronger role.

Given the speed of technological and societal changes, emphasis has been placed on the provision of both vocational training and life-long learning opportunities.¹⁷² Statistical analysis undertaken by Floreani (2014) indicates that general education has “a stronger negative impact on youth

¹⁶⁰ Nikolov, A., Nikolova, D. Ganev, P. and Aleksiev, Y. (2018). *Skills Mismatches - An Impediment to the Competitiveness of EU Businesses*. (p. 17).

¹⁶¹ Ibid. (p. 63)

¹⁶² Muñoz de Bustillo Llorente, R., S. Sarkar, R. Sebastian and J.-I. Antón (2018). *Educational mismatch in Europe at the turn of the century: Measurement, intensity and evolution*. *International Journal of Manpower* **39**(8): 977-995. (p. 2).

¹⁶³ Ibid. (p. 2).

¹⁶⁴ Ibid. (p. 4).

¹⁶⁵ Nikolov, A., Nikolova, D. Ganev, P. and Aleksiev, Y. (2018). *Skills Mismatches - An Impediment to the Competitiveness of EU Businesses*. (p. 63).

¹⁶⁶ Ibid. (p. 63).

¹⁶⁷ Cedefop (2018). *Insight into Skill Shortages and Skill Mismatch. Learning from Cedefop's European Skills and Jobs Survey*. (foreword).

¹⁶⁸ Budria, S. (2011). *Are Educational Mismatches Responsible for the "Inequality Increasing Effect" of Education?* *Social Indicators Research* **102**(3): 409-437. (p. 434).

¹⁶⁹ Nikolov, A., Nikolova, D. Ganev, P. and Aleksiev, Y. (2018). *Skills Mismatches - An Impediment to the Competitiveness of EU Businesses*. (p. 63).

¹⁷⁰ Tomic, C. H. and K. Taylor (2018). *Youth unemployment, the brain drain and education policy in Croatia: A call for joining forces and for new visions*. *Policy Futures in Education* **16**(4): 501-514. (p. 503).

¹⁷¹ Ibid. (p. 503).

¹⁷² Nikolov, A., Nikolova, D. Ganev, P. and Aleksiev, Y. (2018). *Skills Mismatches - An Impediment to the Competitiveness of EU Businesses*. (p. 65).

unemployment than vocational education.”¹⁷³ Apprenticeship schemes have been put forward as a possibility in addressing the issue, although wider implementation across Member States remains patchy.¹⁷⁴ However, some studies have shown that employers might be reluctant to invest in apprenticeships as they might not see a return on their investment,¹⁷⁵ despite the fact that other studies show that increasing investment in training can help improve productivity.¹⁷⁶ This indicates that there might be an opportunity for improved messaging to better communicate the benefits of offering skills-based training.

Others, however, emphasise the responsibility of educational institutions in effectively preparing people for the workplace. Although it might be the responsibility of education to design better work-related curricula, it should be taken into consideration that they might not have the necessary capabilities to effectively forecast future labour market needs and demands.¹⁷⁷ This again calls for more collaborative approaches between different stakeholders in addressing the issue.

2.3.3.2 What can be done about it? VET, life-long learning and mobility

A particular challenge lies in designing responses that are able to work with – or in spite of – the constantly evolving structures that contribute to skills mismatch. According to Nikolov et al. (2018), emphasis should be placed on vocational educational training (VET) and life-long learning. This can, for example, help to mitigate against the potential negative impacts of automation on jobs, which may help contribute to skills becoming obsolete.¹⁷⁸ However, there are some considerations regarding increased use of VET. It has been argued that education needs to be a public policy priority, ensuring sufficient investment. Such investment can help address some of the challenges faced by people in accessing available training opportunities, which can be particularly difficult for young people. Young people might face financial constraints when trying to access training as they are being pressured to enter the job market as quickly as possible, having to prioritise the short-term gains of available income to the long-term gains that more education and training might provide in the future.¹⁷⁹ In addition, it has been suggested that individuals may select degrees or training opportunities with broader curricula because of the uncertainty they face due to potential future automation and technological developments, which might make the skills they are choosing to acquire obsolete.¹⁸⁰ It seems important that people have easy access to VET and options for life-long learning through which they can evolve alongside societal changes.¹⁸¹ Easy accessibility would be particularly important for youth from marginalised and/or low-income backgrounds. In the case of over-qualification, it has been recommended that “additional training and guidance in order to find a position that would fit them” would be beneficial to ensure their full potential is reached.¹⁸² This would have a positive impact on the individuals and improve possibilities for societal returns on investment.

¹⁷³ Floreani, V. A. (2014). *Fixing Europe's Youth Unemployment and Skills Mismatch, Can Public Financial Support to SMEs be effective? The Case of the European Commission and European Investment Bank Joint Initiatives*. (p. 18).

¹⁷⁴ Brunello, G. and Wruuk, P. (2019). *Skill Shortages in Skill Mismatch in Europe: A Review of the Literature*.

¹⁷⁵ Ibid. (p. 22).

¹⁷⁶ Floreani, V. A. (2014). *Fixing Europe's Youth Unemployment and Skills Mismatch, Can Public Financial Support to SMEs be effective? The Case of the European Commission and European Investment Bank Joint Initiatives*. (p. 31)

¹⁷⁷ Brunello, G. and Wruuk, P. (2019). Op cit. (p. 22).

¹⁷⁸ Nikolov, A. et al. (2018). Op cit.

¹⁷⁹ Brunello, G. and Wruuk, P. (2019). Op cit.

¹⁸⁰ Ibid. (p. 23).

¹⁸¹ Ibid. (p. 23).

¹⁸² Floreani, V. A. (2014). *Fixing Europe's Youth Unemployment and Skills Mismatch, Can Public Financial Support to SMEs be effective? The Case of the European Commission and European Investment Bank Joint Initiatives*.

Some public initiatives have focused on employers encouraging adult training, including co-financing programmes, such as levy-grant schemes or tax deductions.¹⁸³ Individuals have been offered vouchers or individual learning accounts to take up opportunities.¹⁸⁴ Employers have reported that increased mobility can be helpful in combatting skills shortages.¹⁸⁵ Therefore, initiatives such as the EU Blue Card and targeted mobility schemes such as *Your first EURES Job* are welcomed, with the latter focusing particularly on youth.¹⁸⁶ However, mobility schemes should be enacted in coordination with other measures.¹⁸⁷ It is unlikely that migration would be sufficient in addressing the issue.

The EU Youth Guarantee, which was set up with the primary goal of addressing youth unemployment, also aims to reduce barriers to labour mobility.¹⁸⁸ This includes aiming to facilitate recognition of qualifications across the EU, improving labour market transparency, and easing the challenging transition period from education into employment.¹⁸⁹ There have also been combined initiatives by the EU and the European Investment Bank, including the *Jobs for Youth – Investing in Skills* programme, launched in 2013, and the *Youth Employment Initiative*, which aim to provide incentives to Small and Medium Enterprises (SMEs).¹⁹⁰ A study from 2014 points out that SMEs are the “main employers of young people”, but do not have the necessary resources to invest in their training.¹⁹¹ The report’s primary conclusion was that success of these initiatives will depend on SMEs’ responsiveness to programmes.

A review of the literature indicates that there is insufficient evidence currently to determine the best way forward. What we know about skills mismatch suggests that country- and/or sector-specific responses might be the way to go.¹⁹² As noted in a literature review published by the European Investment Bank in May 2019, there is a lack of evaluations of policies addressing skills mismatch. Sources available thus far tend to focus on factors such as uptake of offers.¹⁹³

¹⁸³ Brunello, G. and Wruuk, P. (2019). Op cit. (p. 24).

¹⁸⁴ Ibid. (p. 24).

¹⁸⁵ Reymen, D., M. Gerard, P. de Beer, A. Meierkord, M. Paskov, V. Di Stasio, V. DDonlevy, I. Atkinson, A. Majulec, U. Famira-Muehlberger and H. Lutz (2015). *Labour Market Shortages in the European Union*. (p. 98)

¹⁸⁶ Nikolov, A., Nikolova, D. Ganev, P. and Aleksiev, Y. (2018). *Skills Mismatches - An Impediment to the Competitiveness of EU Businesses*. (p. 64).

¹⁸⁷ Reymen, D., M. Gerard, P. de Beer, A. Meierkord, M. Paskov, V. Di Stasio, V. DDonlevy, I. Atkinson, A. Majulec, U. Famira-Muehlberger and H. Lutz (2015). *Labour Market Shortages in the European Union*. (p. 98).

¹⁸⁸ Brunello, G. and Wruuk, P. (2019). Op cit. (p. 24).

¹⁸⁹ Ibid. (p. 24).

¹⁹⁰ Floreani, V. A. et al. (2014). Op cit. (p. 52).

¹⁹¹ Ibid. (p.1).

¹⁹² Cedefop, (2018), *Insight into Skill Shortages and Skill Mismatch. Learning from Cedefop's European Skills and Jobs Survey*. (Foreword).

¹⁹³ European Investment Bank (2019), *Skill shortages and skill mismatch in Europe: A review of the literature*, EIB Working Paper 2019/05.

2.4 Migration

Key Findings

- Migrant youth are at a particularly high risk of social exclusion, due to challenges such as a lack of language skills, existing networks and safety nets in the host country. Further challenges vary depending on the country of origin and destination, and include societal and educational barriers posed by destination countries. Migrant youth tend to face higher unemployment and NEET rates than native-born counterparts.
- There are large variations across Member States in terms of experience with migration and existing legal frameworks, and many countries have struggled to integrate the higher number of new arrivals in 2015.
- The literature identifies disengagement as one of the primary causes for why young migrants fail to be included. Interventions where young migrants can acquire new skills/improve existing skills while connecting with others seem promising.

2.4.1 Scope and scale of the issue

'Migrant youth' is a diverse category of persons. It can refer to both new arrivals, as well as second- or even third-generation migrants.¹⁹⁴ This makes estimating the number of children and youth who might face challenges because of their background difficult. For example, country of birth does not constitute a valid indicator for all migrants. While not a new phenomenon, the issue has received increased attention since 2015, when one third of new arrivals during the migration 'crisis' were children. This included children travelling alone – also known as unaccompanied minors – as well as children travelling with adults.

Given the European Union's interest in fostering social cohesion, successful integration of the immigrant population is considered a high priority.¹⁹⁵ Young migrants are often at particularly high risk of social exclusion. In 2017, 20% of migrants aged 15–29 were not in employment, education or training, compared to 13% of native-born young people.¹⁹⁶ Young migrant women seem to face additional challenges. In some countries, such as Spain, the unemployment rate of young migrant women is relatively high.¹⁹⁷ In cases where women do have jobs their employment situations tend to "be characterised by their poor quality and minimally acceptable working conditions".¹⁹⁸ Migrant youth were also worse affected by the economic crisis than their native counterparts.¹⁹⁹ Between 2007 and 2013, the proportion of foreign-born 15–29 year old NEETs increased from 21.3% to 26.9%, compared to an increase from 12.2% in 2008 to 15% in 2013 among native-born youths.²⁰⁰ Table 5 (below) further illustrates the differences between native-born and foreign-born NEET youth by Member State.

¹⁹⁴ Ibid.

¹⁹⁵ Sotomayor-Morales, E., M. L. Grande-Gascón and N. Ajaouani (2017). *The Social Inclusion of the Immigrant Population in Europe through the Development of New Teaching and Learning Methods in Vocational Training*. *Procedia - Social and Behavioral Sciences* **237**: 535-540.

¹⁹⁶ EUROSTAT (2018). *Young People - Migration and Socioeconomic Situation*.

¹⁹⁷ Sotomayor-Morales, E. et al. (2017). *Op cit*.

¹⁹⁸ Ibid. (p. 536).

¹⁹⁹ Ibid.

²⁰⁰ EUROSTAT (2018). *Young People - Migration and Socioeconomic Situation*.

Table 5. Young People (aged 15–29) not in employment, education or training (NEET) in 2017 (%)

Country	Native-born	Foreign-born	Of which	
			EU-born (outside of the reporting Member State)	Born outside the EU
EU-28	12.6	20.3	15.7	22.5
Belgium	11.0	21.7	16.7	25.5
Bulgaria	18.9	N/A	N/A	N/A
Czechia	9.9	12.5	12.0	13.2*
Denmark	8.5	12.7	11.4	13.5
Germany	6.3	19.7	14.6	21.9
Estonia	11.0	N/A	N/A	N/A
Ireland	12.6	14.4	15.4	12.7
Greece	20.5	34.1	25.10	35.9
Spain	14.5	26.0	27.10	25.6
France	13.0	24.3	15.0	26.4
Croatia	17.4	28.2*	20.8	31.2
Italy	22.8	33.5	34.0	33.3
Cyprus	17.5	17.9	16.1	19.30
Latvia (2015)	13.4	28.7	N/A	31.4
Lithuania	10.2	N/A	N/A	N/A
Luxembourg	5.0	9.5	7.5	15.2
Hungary	13.3	10.9*	N/A	N/A
Malta	7.9	18.2	N/A	24.0
Netherlands	5.4	10.2	7.4	11.4
Austria	6.3	17.5	11.9	21.2
Poland	12.8	14.5*	N/A	15.9
Portugal	10.3	14.6	17.0	13.8
Romania	17.8	N/A	N/A	N/A
Slovenia	8.7	18.7	N/A	18.2
Slovakia	16.1	N/A	N/A	N/A
Finland	10.7	15.0	12.9*	15.8
Sweden	5.6	11.9	8.1	12.7
United Kingdom	11.1	12.7	9.8	15.5

Source: EUROSTAT (2019), edat_ifse_28, N/A= not available, *= low reliability

In addition, migrant children – both first and second generation – are more likely to leave school and are less likely to pursue higher education.²⁰¹ In 2017, the proportion of foreign-born 18–24 year olds who had completed – at most – lower secondary education, and were not pursuing any further education or training (commonly referred to as ‘early leavers’), was twice as high as that of native-born young people (19.3% compared to 9.6%). According to EUROSTAT, this trend applies to the “vast majority of MS”.²⁰² Data is available for 18 Member States and countries, and the largest difference in percentage points between native-born and foreign-born early leavers occurs in Italy (18.1 percentage points higher for foreign-born than native-born) and Spain (16.3 percentage points higher).²⁰³ As noted elsewhere, leaving school early is related to increased social exclusion, meaning that migrant youths are at even higher risk of marginalisation than native youths.

2.4.2 Challenges and causes of the issue

Challenges associated with issues around migration and youth can be categorised along two lines: the child and the system. Migrant children and youth encounter a range of issues that can hinder their social inclusion. Frequent family mobility has been linked to poorer academic performance, which might help explain the higher school-leaver rates compared to native-born children. Also, young migrants, especially if they are from poor socio-economic backgrounds, lack social networks and associated safety nets. They might face language barriers and discrimination, and may lack foundational skills that prevent them from actively engaging in society in the same ways as their native-born counterparts. New arrivals also face a vast array of challenges. They can vary by country of origin, country of destination and whether the young migrant is accompanied or unaccompanied. Some migrant children are positioned at a greater disadvantage depending on their circumstances, such as leaving contexts of extreme inequality, violence or life-threatening situations. Additionally, challenges are exacerbated through difficult migration routes, which can take months or even years for unaccompanied minors to traverse, relying on different actors such as smugglers, supportive individuals or religious institutions and others. These conditions all contribute to stress and can lead to trauma, which, in turn, puts further strain to migrant children who need to adjust to new country contexts. A UK government report on the treatment of unaccompanied migrant children across the European Union lamented the fact that authorities seemed reluctant to take responsibility for them, and that youth are often faced with a rejecting and disapproving culture. Reports of newly arrived migrant youth experiencing abuse are common.²⁰⁴ The new country contexts may not only be difficult to navigate due to language and financial barriers, but regulations posed on social or civic levels can present further constraints. It is also difficult for migrants and migrant children to navigate and understand foreign education systems.²⁰⁵

But there are also challenges for the system. Most of the existing academic literature seems to be focused on particular Member States in terms of young migrants’ integration. This is perhaps because MS vary widely in their experience of migration. For example, countries like the UK, Germany and France have had some experience with migration since World War II, whereas for other countries like Spain, Sweden and Ireland it is a more recent phenomenon. In addition, MS differ in their welfare

²⁰¹ Hennis, T. A., de Vries, P. and Veen, W. (2017). *Engaging at-risk youth through self-directed learning*. *Italian Journal of Educational Technology* 25(1): 18-30.

²⁰² EUROSTAT (2018). *Young People - Migration and Socioeconomic Situation*.

²⁰³ Ibid.

²⁰⁴ House of Lords: European Union Committee (2016). *Children in crisis: unaccompanied migrant children in the EU*, HL Paper 34. As of 23 August 2019: <https://publications.parliament.uk/pa/ld201617/ldselect/ldeduc/34/34.pdf>

²⁰⁵ Oliver, C., Jayaweera, H. (2013). *The Impacts of Restrictions and Entitlements on the Integration of Family Migrants*. National Report UK. As of 23 August 2019: https://www.compas.ox.ac.uk/wp-content/uploads/PR-2013-IMPACIM_UK.pdf

regimes, citizenship traditions and labour market conditions. This also means that different countries have different resources and existing tools at their disposal to respond to migrants' needs. In regard to children and youth migration, common challenges for the system include adapting to increased diversity in classrooms and addressing children's language needs. The next section will review some examples of how to address such issues.

2.4.3 Responses to the issue

In light of the various challenges migrant youths can face, addressing their particular diverse needs and integration into the country's societal and educational context is crucial.²⁰⁶ Disengagement has been identified as one of the primary factors for discontinuing formal and non-formal forms of education.²⁰⁷ The factors mentioned above that may hinder migrant students' participation in their communities can lead to feeling isolated in schools, often leading to migrant students appearing unmotivated.²⁰⁸ Hennis et al (2017) recommend that programmes aimed at encouraging migrant youths to stay in education and/or training should "attend to the intrinsic motivation to learn".²⁰⁹ The authors identify existing programmes that use two different categories of methods: on one hand, informal vocational education and training programmes; and on the other hand, programmes focused on addressing personal circumstances through counselling or other personal guidance sessions. Hennis et al. (2017) explain that these types of interventions usually increase learning engagement and motivation as an outcome after completion of the programme. Further, the authors recommend that programmes on vocational education and training should also place additional focus on "personal enjoyment or fulfilment of being engaged in learning."²¹⁰ Research has shown that "motivation is greater when individuals feel personally involved in tasks that include interaction with others in a social environment that they find relevant and meaningful". This can support young migrants' empowerment and help them adapt to their environments. However, this has to be seen in the context of potential barriers. As explained in previous sections, challenges can vary depending on country of origin and country of destination as well as personal circumstances of the migrant student. Further, educational systems may introduce additional barriers to the approaches posed above, such as limited funding opportunities, clustering of migrant children in underperforming schools or inadequate support from local or regional levels.²¹¹

Countering drop-out rates of marginalised youths has been high on the EU policy agenda. In 2008, partners from six countries – Greece, Italy, Spain, Portugal, Austria and the Netherlands – formed a consortium that established the reAct project (re-activating teachers and learners). It has been implemented in these countries across a variety of formal and in-formal educational settings. Hennis et al. (2017) conducted an evaluation of two consecutive pilots in each partner country over the course of five months with roughly 20–30 students per pilot and 3–6 teachers. The research found that allowing students to work on self-guided, interest-based projects in settings that allow for collaborative learning have "great potential for engaging young people and fostering agency".²¹² However, the

²⁰⁶ Janta, B., E. Harte and R. Europe (2016). *Education of Migrant Children: Education Policy Responses for the Inclusion of Migrant Children in Europe*. Research Report, RAND Europe.

²⁰⁷ Hennis, T. A., de Vries, P. and Veen, W. (2017). *Engaging at-risk youth through self-directed learning*. *Italian Journal of Educational Technology* 25(1): 18-30.

²⁰⁸ Ibid.

²⁰⁹ Ibid.

²¹⁰ Ibid.

²¹¹ Janta, B., E. Harte and R. Europe (2016). *Education of Migrant Children: Education Policy Responses for the Inclusion of Migrant Children in Europe*. Research Report, RAND Europe.

²¹² Hennis, T. A., de Vries, P. and Veen, W. (2017). *Engaging at-risk youth through self-directed learning*. *Italian Journal of Educational Technology* 25(1): 18-30.

authors also concede that successful implementation has been challenging as the outcome of the initiative greatly depends on the existing contexts.

In addition, Erasmus+ and its “Inclusion and Diversity Strategy” predecessors have assisted youths from disadvantaged backgrounds – including migrants or refugees – as a specific focus. Several programmes, such as the European Voluntary Service, have increased integration as a particular objective. The idea is that such opportunities encourage intercultural dialogue and intercultural learning, which is expected to improve mutual understanding and discourage racism or xenophobia.²¹³

Further, to respond to the new young migrant and refugee arrivals in 2015, the European Commission set up an Expert Group on the Role of Youth Work for Young Migrants and Refugees. Considering the youth sector’s experience in ‘prompting the integration of young migrants in the European context’ due to funding activities like the ones mentioned above, it was assumed that youth work could play a positive role in facilitating the integration of migrant youths. ‘Youth work’ in this context includes a wide range of activities, including but not limited to leisure time and sport activities that are by, with, and for young people.²¹⁴ They can be part of formal institutional/education settings or informally through local groups. The activities vary between local contexts depending on local, national, and regional conditions.²¹⁵ It can also include educational partnerships between young people and youth workers. Emphasis is placed on introducing young people to new activities and skills, promoting participation in the world around them and fostering cultural understandings.²¹⁶

2.5 New Forms of Communication and Youth Political Participation

Key Findings

- Young people are turning to alternative forms of political engagement, including increasing online use. Recent eco-activism is a strong example.
- The literature emphasises the connection between youth political participation and trust in political institutions, which has been declining.
- The internet does not only present a threat, but also an opportunity for fostering youth political engagement. However, steps need to be taken to ensure content is trustworthy and reliable and youth are aware of potential risk.

2.5.1 Scope and scale of the issue

European Union countries are participatory and representative democracies, and it is important that citizens actively participate in civic and political life.²¹⁷ The existing literature identifies changes in attitudes towards politics amongst young people in the European Union, as well as shifts in their methods of political engagement,²¹⁸ including declining political interest and participation and low turnout at elections in previous years.²¹⁹ The European Elections in 2014 had a higher turnout among

²¹³ European Commission, *Youth and Migrants: Policy Support* https://ec.europa.eu/youth/policy/implementation/migration_en

²¹⁴ The Council of the European Union. (2018) *The Role of Youth Work in the Context of Migration and Refugee Matters*. <http://data.consilium.europa.eu/doc/document/ST-14082-2018-INIT/en/pdf>

²¹⁵ Ibid.

²¹⁶ Ibid.

²¹⁷ Motti-Stefanidi, F. and E. Cicognani (2018). *Bringing the European Union closer to its young citizens: Youth active citizenship in Europe and trust in EU institutions*. *European Journal of Developmental Psychology* **15**(3): 243-249.

²¹⁸ Ibid.

²¹⁹ Bakker, T. P. C., de Vreese (2011). *Good News for the Future? Young People, Internet Use, and Political Participation*. *Communication Research* **38**(4): 451-470. Because political participation can be measured in different ways, there is disagreement in the academic literature in

older participants than among young respondents, with a turnout of only 28% of people in the age group 18–24.²²⁰ In comparison, the European Elections in 2019 saw an increased turnout of 42% (an increase that was mirrored by higher participation in all older age groups). In general, the elections of 2019 presented the highest voting turnout since 1994.²²¹

Beside traditional forms of political engagement (e.g. voting), other forms of political engagement have recently developed. For example, young people today tend to be more engaged in local associations or non-governmental organisations rather than political parties.²²² Another possible route is engaging online. The web offers a low cost form of political participation,²²³ and the access to, and use of, digital tools has seen a large increase in recent years.²²⁴

However, existing evidence is inconclusive as to whether increased political participation online leads to decreased political participation offline.²²⁵ A possible reason for this may be the different ways in which political participation can be measured. Some argue that there is not so much a decrease in political engagement and interest of young people in the European Union, but rather that they might be less attracted to traditional forms of political participation and that they wish to express themselves elsewhere. The increasing use of digital media can impact political mobilisation and activism of youth, both online and in person.²²⁶ Research on civic engagement in times of crises has shown that young individuals across Europe may use new media to share information, recruit and mobilise in a timely fashion in response to different crisis scenarios, such as the financial crisis in 2011 in Portugal and Spain.²²⁷ Similar use of media was observed during various protests that occurred during the first decade of the twenty-first century. Examples include the protests in Iceland and the United States following the financial crisis in 2008, as well as the popular uprising during the Arab Spring.²²⁸ Connective movements and crowd-enabled action can be mobilised through social networks. Problems can be framed in a personalised and understandable manner in different cultural and social instances. Thus usage of social media for activism may reach and interact with larger crowds despite differences in location, time or even culture.²²⁹ Most recently this has been shown in the example of the “Fridays for Future” movement or “School Strike for Climate”, initiated by 16-year old Greta Thunberg in the summer of 2018 in Sweden.²³⁰ The movement aims to bring the climate crisis to the forefront of attention, raising awareness as well as sparking political debates and action through youth

terms of whether political participation is actually decreasing – or whether it is just a shift in the types of methods people use to engage politically. For more information see Zani, B. and Barret, M. (2012). *Engaged Citizens? Political Participation and social engagement among youth, women, minorities, and migrants*, Human Affairs, 22, 273-282.

²²⁰ DG COMM Public Opinion Monitoring Unit (2014). *Post-election survey 2014*. Brussels, European Parliament: 3-6.

²²¹ European Parliament (2019). *Eurobarometer: Post-election survey 2019 – First results*. <https://www.europarl.europa.eu/at-your-service/de/be-heard/eurobarometer/post-election-survey-2019-first-results>

²²² Barrett, M., Bruna Zani (2015). *Political and Civic Engagement. Multidisciplinary Perspectives*. New York, Routledge.

²²³ Bakker, T. P. and de Vreese, C. (2011). *Good News for the Future? Young People, Internet Use, and Political Participation*. *Communication Research* 38(4): 451-470.

²²⁴ Growing Digital Citizens. Developing Active Citizenship Through eTwinning (2016) https://www.etwinning.net/eun-files/book2016/eTwinningBook_2016.pdf

²²⁵ Bakker, T. P. and de Vreese, C. (2011). *Good News for the Future? Young People, Internet Use, and Political Participation*. *Communication Research* 38(4): 451-470 (p. 456).

²²⁶ Bennett, L., A. Segerberg and S. Walker (2014). *Organization in the crowd: peer production in large-scale networked protests*. *Information, Communication & Society* 17(2): 232-260.; Sloam, J. (2014). *The outraged young: young Europeans, civic engagement and the new media in a time of crisis*. *Information, Communication & Society* 17(2): 217-231.

²²⁷ Sloam, J. (2014). Op cit.

²²⁸ Bennett, L., A. Segerberg and S. Walker. Op cit.

²²⁹ Ibid.

²³⁰ European Parliament (2019). *Climate activist Greta Thunberg urges MEPs to put words into action*. [European Parliament Press Room](https://www.europarl.europa.eu/press-room/en/answer-to-a-question).

school strikes.²³¹ The eco-activism strikes have been spread through social media platforms such as Instagram and Twitter, resulting in school strikes across a number of European countries as well as globally.²³² Strikes at schools have also reached higher education institutions, sparking strikes at universities.²³³ Recently, the climate activism movement has reached the political stage through a speech given by Greta Thunberg in Spring 2019 to the European Parliament, and has received attention and support from over 26,800 scientists across Europe, with an ongoing movement across social media as well as offline.²³⁴

2.5.2 Causes and consequences of the issue

The European Union recognises the importance of digital skills for individuals²³⁵ and actively encourages access to, and ability in, the use of technology. While access to digital tools is not fully universal yet (e.g. research has shown that it is lower amongst women, with particularly mothers being the last in the family to gain access to a shared digital device),²³⁶ Eurostat data shows that across all 28 EU countries in 2018, 98% of people between the ages of 16 and 24 had used digital tools in the last 12 months.²³⁷ There is less data available for children under the age of 15, but in the UK in 2013, 93% of all 5–15 year olds in the UK used the internet, as did 82% of 5-7 year olds.²³⁸

Internet users tend to engage in several different kinds of activities. For the general population, the most popular activities (starting with the most popular), included: (1) emailing (86% of internet users in 2017); (2) finding information (78%); (3) reading online news (72%); and (4) engaging in social networks (65%).²³⁹ However, there are differences in the most common activities by age group. For young people in the European Union, engagement with social media constitutes the most popular activity, with 90% of 16–24 year olds in the EU participating in social networks in 2017.²⁴⁰ This is followed by “watching videos from commercial or sharing services such as YouTube or Netflix (83% in 2016) and listening to music (80% in 2016)”.²⁴¹ In contrast, the two most popular online activities for people between the ages 65 and 74 seem to be reading the news and searching for health-related information.²⁴² Further insight exists on the type of participation, which can range from mostly browsing to active engagement and “advocacy”.²⁴³ Because of the possibility of messages “going viral” the power for the latter cannot be underestimated.²⁴⁴ Individuals are not only consumers and users of digital content, but are also creators, and this also holds true for young people. The internet takes up a

²³¹ European Parliament (2019). *Climate activist Greta Thunberg urges MEPs to put words into action*. As of 31 May 2019: <https://www.europarl.europa.eu/news/en/press-room/20190410IPR37531/climate-activist-greta-thunberg-urges-meps-to-put-words-into-action-;#FridaysForFuture>. "About #FridaysForFuture." As of 31 May 2019: <https://www.fridaysforfuture.org/about>.

²³² #FridaysForFuture. (n.d.). Op cit.

²³³ AStA Hamburg *General Students' Committee Hamburg*. (2019). "News." As of 22 August 2019: <https://www.asta.uni-hamburg.de/1-ueberuns/1-news/2019-03-11-demoauf-ruf-fff.html>.

²³⁴ #FridaysForFuture. (n.d.). Op cit.; Scientists for Future (2019). *Stellungnahme*. As of 21 August 2019: <https://www.scientists4future.org/stellungnahme/>; European Parliament (2019). Op cit.

²³⁵ Ibid (p. 13).

²³⁶ Ibid (p. 11)

²³⁷ Eurostat, *Profile of The Digital Society & Business*, <https://ec.europa.eu/eurostat/cache/infographs/ict/bloc-1.html>

²³⁸ Growing Digital Citizens. *Developing Active Citizenship Through eTwinning* (2016) https://www.etwinning.net/eun-files/book2016/eTwinningBook_2016.pdf (p. 10)

²³⁹ Eurostat, *Profile of The Digital Society & Business* <https://ec.europa.eu/eurostat/cache/infographs/ict/bloc-1.html>

²⁴⁰ Ibid.

²⁴¹ Ibid.

²⁴² Growing Digital Citizens. *Developing Active Citizenship Through eTwinning* (2016) https://www.etwinning.net/eun-files/book2016/eTwinningBook_2016.pdf,

²⁴³ Ibid (p. 12)

²⁴⁴ Ibid (p. 11)

space as an additional ‘socialiser’ in young people’s lives, in addition to traditional key factors of families, school, and religious institutions, where applicable.²⁴⁵

The literature identifies a decrease in trust in political institutions among youth in the European Union as an important factor in how they choose to engage with politics. Multiple sources explain that the current generation of youth in the European Union report high rates of distrust in political institutions – both in their respective national institutions and the European Union institutions. In a multi-country analysis of young people aged 18–29, it was found that youth in more Nordic EU countries, including Denmark, Sweden, Finland, as well as Luxembourg, The Netherlands and Belgium, felt higher levels of political trust than in Austria, Germany, Ireland and the UK.²⁴⁶ The southern European countries, including Spain, Portugal, Italy and France, recorded even lower levels of political trust.²⁴⁷ A common explanation for this is that the 2008 economic crisis had a particularly large impact on young people.²⁴⁸ The increasing number of people faced with a lack of opportunity has led to the creation of a “lost generation”. There is an increased risk of exclusion from social and civic life and “some are at risk of disengagement, marginalisation or even radicalisation.”²⁴⁹ The economic crisis provoked many questions about governance and democracy, and trust in the European project decreased.²⁵⁰ In some EU Member States, there has been an increase in activity and popularity of populist, extremist right-wing parties, which encourage opposition towards EU institutions.²⁵¹ One study examining the attitudes and behaviours of 1,157 adolescents in Sweden reports that young people who feel alienated from politics and government, including reporting a lack of trust, are more likely to engage in unconventional forms of political participation, and that can include acts of disruption and violence.²⁵²

2.5.3 Responses to the issue

Given the evidence presented thus far, it emerges that one of the most important aspects of interventions aiming to foster youth political participation is the need to target this group of politically disaffected young people. Interventions that capture their interest and attention and needs are required to encourage trust in political institutions. This means that increased online communication does not only present a threat, but can also serve as a potential opportunity. For example, social-media platforms are now increasingly being used for teachers to engage with learners.²⁵³ This means that there is more opportunity for students and teachers to engage and exchange ideas outside the time and space constraints of the classroom. It has also been found that these methods of engagement mean that students are better able to give feedback to teachers and professors.²⁵⁴ However, this

²⁴⁵ Bakker, T. P. and de Vreese, C. (2011). *Good News for the Future? Young People, Internet Use, and Political Participation*. *Communication Research* **38**(4): 451-470. (p. 454).

²⁴⁶ Chevalier, T. (2019). *Political Trust, Young People and Institutions in Europe. A Multilevel Analysis*. *International Journal of Social Welfare* **0**: 1-13.

²⁴⁷ Ibid.

²⁴⁸ European Commission. (2015). COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS: Draft 2015 Joint Report of the Council and the Commission on the implementation of the renewed framework for European cooperation in the youth field (2010–2018). As of 21 August 2019: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2015:429:FIN>.

²⁴⁹ Ibid.

²⁵⁰ Motti-Stefanidi, F. and E. Cicognani (2018). *Bringing the European Union closer to its young citizens: Youth active citizenship in Europe and trust in EU institutions*. *European Journal of Developmental Psychology* **15**(3): 243-249.

²⁵¹ Ibid.

²⁵² Dahl, V., E. Amnå, S. Banaji, M. Landberg, J. Šerek, N. Ribeiro, M. Beilmann, V. Pavlopoulos and B. Zani *ibid*. *Apathy or alienation? Political passivity among youths across eight European Union countries*. 284-301.

²⁵³ Chawinga, W. D. (2017). *Taking social media to a university classroom: teaching and learning using Twitter and blogs*. *International Journal of Educational Technology in Higher Education* **14**(1): 3.

²⁵⁴ Ibid.

observation highlights the importance of ensuring that all young people have the necessary digital skills to enable access and avoid exclusion. In addition, it also highlights the need for ensuring that young people are able to evaluate the credibility of sources and navigate the internet responsibly and in a way that keeps them safe.

Besides offering new ways of disseminating knowledge, the digital space can also function as an opportunity for youth to engage politically and civically online. It has been argued that young people do not necessarily distinguish between online and offline political engagement, emphasising the importance of digital participation. Online political engagement, through the internet and social-media platforms, can take various forms, such as petitioning, easy access to and sharing of politically relevant information and a more direct contact to politicians through online platforms. All of these can be seen as valuable options of engagement of youth.²⁵⁵ The EU has historically recognised the importance of youth engagement, most recently re-emphasising this through the current cycle of the EU Youth Dialogue (2019–2020), which operates as a forum for dialogue and joint reflection on the decision-making processes of EU Youth Strategies and direct engagement between decision-makers and youth.²⁵⁶

Initiatives to support this objective include eTwinning, a life-long learning programme that aims to improve digital skills by providing a platform for the development of projects, while connecting students and educators.²⁵⁷ The project is based on the idea that digital skills can facilitate participation in society and help young people become “engaged, independent citizens”.²⁵⁸ One of the project’s aims is to provide young people with some sort of “moral compass” when navigating the internet. It also aims to promote inclusive education and values, in line with the European Commission’s anti-radicalisation agenda.²⁵⁹

2.6 Academic Freedom in Higher Education

Key Findings

- Academic freedom is crucial in allowing young people to study and think critically.
- Autonomy and freedom of higher education institutions need to be respected and promoted by public organisations.
- The literature emphasises different cases of infringements on academic freedom in various EU countries, and outlines a large variation in the degree of academic freedom across countries.

Academic freedom is essential for the pursuit of knowledge and ‘truths’ and imparting them to pupils and students, and forms a fundamental principle of higher education. It allows this knowledge search and dissemination without infringements and restrictions of ideological or political nature.²⁶⁰

²⁵⁵ Pontes, A., Henn, M. and Griffiths M. D. (2017). *Towards a conceptualization of Young People’s Political Engagement: A Qualitative Focus Group Study*. *Societies* 8(17): 1-17.

²⁵⁶ Further information available at: https://ec.europa.eu/youth/policy/youth-strategy/euyouthdialogue_en

²⁵⁷ Camilleri, R. (2016). *Global Education and Intercultural Awareness in eTwinning*. *Cogent Education* 3(1).

²⁵⁸ D. Cassells, A. Gilleran, C. Morvan and S. Scimeca. (2016). *Growing Digital Citizens. Developing Active Citizenship through eTwinning*.

²⁵⁹ Ibid.

²⁶⁰ Woods T. M., Acosta W. Chung E. Cox A. Cargica G. Klucken J. and Chisholm-Burns M. (2016) *Academic Freedom Should Be Redefined: Point and Counterpoint*.

Academic freedom is paramount and should be reflected in research, teaching and studying that empower independent thinking and advance knowledge. Autonomy for academic and educational institutions needs to be respected, promoted and protected by public authorities.²⁶¹ It has been argued that academic freedom, however, is not self-evident on a global and European scale.^{262,263} Given the importance of advancing knowledge and enabling scientific and technological discoveries, as well as promoting unrestricted learning for young people, we consider the different aspects of academic freedom below and explore the current issues surrounding the topic.

A frequently cited definition of academic freedom was coined by Albert Einstein: “the right to search for truth and to publish and teach what one holds to be true”.²⁶⁴ Nevertheless, there is little consensus among experts on a clear and uniform definition of academic freedom.²⁶⁵ However, it is generally acknowledged that academic freedom is a largely multi-dimensional concept.²⁶⁶ Karran and Mallinson (2017) distinguish between two essential substantive elements and two supportive elements, which together constitute the pillars of academic freedom.²⁶⁷ The two substantive pillars are freedom to teach and freedom to research. Both can include various sub-elements, ranging from freedom to determine course content to establishment of entry procedures, whereas freedom to research can include elements such as freedom to determine research methods, what to research and for what purposes, among others. The two supporting elements are tenure (the possibility for having job security) and self-governance (the right to participate in decision-making and voicing personal opinions on how the university is run). Further, one should distinguish between institutional and individual autonomy of academic freedom.²⁶⁸

These four pillars may serve as a guide to distinguish different facets of academic freedom. Karran and Mallinson (2017) state that all EU Member States except the UK have an indirect protection of academic freedom, through the right to freedom of speech or expression, implemented within their respective constitutions.²⁶⁹ The majority (20 out of 28) of EU Member States also protect some element (at least either freedom to teach or freedom to research) of academic freedom directly through the constitution, with some countries specifically mentioning the right to academic freedom, such as Spain and Luxembourg.²⁷⁰ This emphasises the diversity among the EU Member States due to cultural and historical developments, reflected in constitutional and legislative protections of academic freedom.

²⁶¹ Vrielin J., Lemmens, P., Parmentier S. and LERU Working Group on Human Rights. 2011. *Academic Freedom as a Fundamental Right*. *Procedia Social and Behavioural Science* .12:117-141.

²⁶² EUA. (2019). *EUA, Allea and Science Europe join forces on academic freedom and autonomy*. As of 13 August 2019: <https://eua.eu/news/297:eua,-allea-and-science-europe-join-forces-on-academic-freedom-and-autonomy.html>

²⁶³ ALLEA, EUA and Science Europe. (2019) *Academic freedom and institutional autonomy: Commitments must be followed by action. Joint statement*. As of 13 August 2019: <https://eua.eu/downloads/content/academic%20freedom%20statement%20april%202019.pdf>.

²⁶⁴ Corbett, A., & Gordon, C. (2018). *Academic Freedom in Europe: The Central European University Affair and the Wider Lessons*. *History of Education Quarterly* 58(3): 467–74.

²⁶⁵ Karran, T. and L. Mallinson (2017). *Academic Freedom in the U.K.: Legal and Normative Protection in a Comparative Context* [Report for the University and College Union].

²⁶⁶ Orosz, K. 2018. 'Interconnected Dimensions of University Autonomy in Europe.' In *European Higher Education Area: The Impact of Past and Future Policies*. Edited by A. Curaj, L. Deca, R. Pricopie, S. Bergan, E. Hazelkorn, L. Matei, J. Salmi & H. DeWit. Cham: Springer International Publishing Ag.

²⁶⁷ Karran, T. and L. Mallinson (2017). *Academic Freedom in the U.K.: Legal and Normative Protection in a Comparative Context* [Report for the University and College Union].

²⁶⁸ Ibid.

²⁶⁹ Ibid. (pp. 6-11)

²⁷⁰ Ibid.

2.6.1. Scope and scale of the issue

Similar to the diverse differences in protection of academic freedom, various issues relating to the topic can be distinguished. These range from concerns on bullying to restrictions of financial decision-making.

The degree of autonomy varies across EU countries and recent concerns about the erosion of academic freedom have been voiced. A Times Higher Education (2017) article reported that 23% of 2,300 lecturers at universities across the UK experienced bullying due to their academic views. Approximately half of survey participants expressed concern about the erosion of academic freedom and mechanisms that are supposed to protect them.²⁷¹ Further, the European University Association on university autonomy in Europe has documented a decline in financial autonomy of institutions of higher education in recent years. This included a decline in autonomy of staffing in some Member States, and in the instance of Ireland, governmental constraints on salaries and remuneration of staff. Autonomy of staffing reflects the ability to decide on promotions, dismissals, salaries and recruitment procedures. Decreased autonomy in salaries of academic staff for instance, can indicate that decisions on pay cuts can be at state level with less influence from the higher education institution.²⁷² The Times Higher Education article also found that northern European countries have a higher degree of autonomy than eastern and southern European countries such as Hungary, Serbia, Croatia, Slovenia, Spain and Italy. This may be related to the degree of public funding and dependence on yearly budgets as well as governmental controls on spending.²⁷³ Further challenges to academic freedom may be observed in some countries in Central and Eastern Europe, which joined the EU between 2004 and 2007²⁷⁴.

2.6.2. Causes and consequences of the issue

Literature suggests that challenges to academic freedom may be due to different types of policy narratives and political regimes, as well as a political shift away from the importance of higher education within certain countries towards a focus on more traditional skill sets.²⁷⁵ Corbett and Gordon (2018) suggest that certain Member States have taken action in restricting institutional autonomy of universities and through this, are targeting academic freedom.²⁷⁶

Further, academic freedom can also be limited due to external pressures from the corporate sector. To appease funders for research, in a pursuit to maximise profits, academic freedom can be limited,

²⁷¹ Times Higher Education. (2017). 23% of scholars 'bullied for views'. Issue 2307, p7. As of 23 August 2019: <https://www.timeshighereducation.com/news/quarter-of-uk-academics-bullied-over-scholarly-views>

²⁷² European University Association. (2017). *University Autonomy in Europe III The Scorecard 2017*. Brussels: European University Association (EUA).

²⁷³ Times Higher Education. (2017). *University autonomy in Europe "hit by austerity"*. *Times Higher Education* (2300): 6-7. As of 23 August 2019: <https://www.timeshighereducation.com/news/university-autonomy-in-europe-hit-by-austerity#survey-answer>

²⁷⁴ An example of challenge to academic freedom within the past two years recently occurred in Hungary. Sources:

- Central European University (2017). Summary of legislative changes and their impact on CEU. As of 30 May 2019: https://www.ceu.edu/sites/default/files/attachment/basic_page/18010/summaryoflegislativechangesandimpact7.4.17.pdf
- Corbett, A., & C. Gordon (2018). "Academic Freedom in Europe: The Central European University Affair and the Wider Lessons". *History of Education Quarterly* 58(3): 467-74.
- Enyedi, Z. (2018). "Democratic Backsliding and Academic Freedom in Hungary". *Perspectives on Politics* 16(4): 1067-74.

²⁷⁵ Matei, Liviu, & Julia Iwinska. 2018. 'Diverging Paths? Institutional Autonomy and Academic Freedom in the European Higher Education Area.' In *European Higher Education Area: The Impact of Past and Future Policies*, Edited by Adrian Curaj, Ligia Deca & Remus Pricopie, 345-68. Cham: Springer International Publishing

²⁷⁶ Corbett, A., & C. Gordon. 2018. 'Academic Freedom in Europe: The Central European University Affair and the Wider Lessons.' *History of Education Quarterly* 58(3): 467-74.

through a push for publicising results that are favourable and neglecting negative outcomes.²⁷⁷ However, pressures on academic freedom can also come from within the higher education institutions. This can be related to, for instance, freedom of expression when groups of people may take ideas in an offensive way.²⁷⁸

In general, the antecedents to threats to academic freedom are diverse. Causal explanations referring to particular systems or higher institution operations are difficult to determine, due to the diversity of higher education governance across countries.²⁷⁹

2.6.3. Responses at EU and national level and current discussions

Policies and strategies to promote academic freedom are multi-fold. At the EU level, academic freedom is enshrined in the Charter of Fundamental Rights, Article 13 of which emphasises the importance of academic freedom and freedom of scientific research.²⁸⁰ A 2018 European Parliament Recommendation on defence of academic freedom in the EU's external action highlighted that "claims to academic freedom fall under existing human rights law, derived from the right to education and the rights to freedom of expression and of opinion". Among other recommendations, it urged Member States to engage in open dialogue and contribute to the defence of academic freedom as well as institutional autonomy.²⁸¹ In 2011 the European Students' Union (ESU) emphasised the need to fight against academic corruption, and aimed to collaborate with the Magna Charta Observatory.^{282, 283} Further, Professor Liviu Matei, provost and pro-rector at the CEU, called for a direct response on EU level in form of legal concepts, rights and values in relation to academic freedom.²⁸⁴

At the European level, further processes are in place to support academic freedom. As an overarching process, the Bologna Process is an essential tool for promoting values such as academic freedom, and is supported by 48 European Countries – including all EU MS.²⁸⁵ The original aim of the Bologna process, an intergovernmental cooperation of 48 European countries that constitute the European Higher Education Area (EHEA), is to enable comparability between education systems and facilitate job seekers to move within Europe.²⁸⁶

Under the Bologna Process, the EHEA goals are, among others, supporting and promoting academic freedom within the participating EU countries and additional involved countries.²⁸⁷ It was established

²⁷⁷ Ryan A. (2016). 'Academic Freedom and the "Truth Function"'. Hudson C., & Williams J. (eds.). *Why academic Freedom Matters, a response to current challenges*. Civitas: London. Pp.49-64

²⁷⁸ Leiter B. (2017). "Why Academic Freedom?" In D. Downs & C. Supernant (eds.). *The value and Limits of Academic Speech: Philosophical, Political, and Legal Perspectives* (Routledge, 2018).

²⁷⁹ European Commission, EACEA and Eurydice (2018). *The European Higher Education Area in 2018: Bologna Process Implementation Report*. Luxembourg: Publications Office of the European Union.

²⁸⁰ Further information available at: https://www.europarl.europa.eu/charter/pdf/text_en.pdf

²⁸¹ Further information available at: https://www.europarl.europa.eu/doceo/document/TA-8-2018-0483_EN.html?redirect

²⁸² European Students' Union (2011). *ESU Plan of Work 2012*. European Students' Union.

²⁸³ At the international level, the Magna Charta Universitatum, an initiative with signatories from various international universities, forms a core of the international recognition of academic freedom, institutional autonomy, and the importance of cultures influencing one another as well as the importance of a European humanist tradition within universities. In order to promote as well as monitor potential threats to these values, an association (Observatory Magna Charta) was established. As of 13 August 2019: <http://www.magna-charta.org/about-us>

²⁸⁴ Times Higher Education. (2018). *Hungarian academics fear EU funding cuts over loss of autonomy*. As of 23 August 2018: <https://www.timeshighereducation.com/news/hungarian-academics-fear-eu-funding-cuts-over-loss-autonomy>

²⁸⁵ http://ehea.info/media/ehea.info/file/20090223-Ostend/54/2/BFUG_Board_CZ_19_4_draft_communique_200209_594542.pdf

²⁸⁶ <http://www.ehea.info/>

²⁸⁷ Ferrer-Martin, R. M., M. R. Sepulveda, F. J. Reyes-Zurita, M. Medina-O'Donnell, A. Perez-Jimenez, C. E. Trenzado & E. E. Rufino-Palomares. 2014. 'M-LEARNING: A NOVEL METHODOLOGY FOR TEACHING AND LEARNING AT THE UNIVERSITY.' In *Edulearn14: 6th International*

to build a collaboration to implement a common set of commitments to reforms based on key values such as academic freedom, freedom of expression, autonomy for institutions, free movement of students and staff and independent student unions. Thus, EHEA aims to enable the strengthening of the higher education sector, a goal that also involves focusing on quality assurance mechanisms.²⁸⁸ Progress was made in 2018 on various goals that had been set through the Bologna Process, for instance on employability of recent graduates and recognition of qualifications. However, violations of the Bologna values have occurred within EHEA countries, leading to calls for legal protection and clearly defined roles for public organisations, as well as the government, in interactions with and management of higher education institutions.²⁸⁹

As a Consultative Member and participant in all Bologna Process activities, the European University Association (EUA) has documented cross-cutting trends on autonomy and academic freedom at the EU level. The EUA found that autonomy, especially financial autonomy, had been scaled down in some countries in response to the financial crisis and limited public budgets. It further emphasised that financial autonomy is critical in achieving institutional autonomy of universities.²⁹⁰

It has been emphasised within the literature that achieving autonomy and academic freedom in higher education institutions needs to be supported through transparency and internal integrity. In line with this, accountability is an essential element. Accountability, however, has been referred to constraining and limiting academic freedom as well as autonomy.²⁹¹ A critical factor contributing to accountability on national as well as EU level is quality assurance.²⁹² At the EU level, the Bologna Process – and through it, the establishment of the European Network for Quality Assurance in Higher Education (ENQA) – aim to enable accountability, cooperation and comparability of institutions of higher education (and their quality assurance procedures). Nevertheless, Serrano-Velarde (2014) emphasised that in general, there has been fatigue in Europe at national levels on top-down approaches to reforms in higher education over the last decade. This dissatisfaction has also been mentioned by academics in relation to the regulation of quality assurance accreditation agencies. Serrano-Velarde (2014) also observed a resistance to further supervision, which is perceived as potentially infringing academic autonomy and freedom.²⁹³

As presented earlier in this chapter, at the national level, some EU Member States have the right to academic freedom and protection enshrined within their constitutions. Nevertheless, large differences exist as to which elements of academic freedom are protected.

Conference on Education and New Learning Technologies, Edited by L. G. Chova, A. L. Martinez & I. C. Torres, 1182-5. Valencia: IATED-International Academy of Technology, Education and Development.

²⁸⁸ European Higher Education Area. n.d. *European Higher Education Area and Bologna Process*. EHEA.

²⁸⁹ European Commission, EACEA and Eurydice (2018). *The European Higher Education Area in 2018: Bologna Process Implementation Report*. Luxembourg: Publications Office of the European Union.

²⁹⁰ European University Association. 2017. *University Autonomy in Europe III The Scorecard 2017*. Brussels: European University Association (EUA)

²⁹¹ Huisman, Jeroen. 2018. 'Accountability in Higher Education.' *Encyclopedia of International Higher Education Systems and Institutions*.

²⁹² Berdahl, Robert. 2010. *Thoughts about academic freedom, autonomy and accountability*. Observatory Magna Charta Universitatum. As of 30 May 2019:

http://www.magna-charta.org/resources/files/Berdahl_2010Thoughts_Abou_Academic_Freedom_Autonomy_and_Accountability.pdf;

Huisman, Jeroen. 2018. 'Accountability in Higher Education.' *Encyclopedia of International Higher Education Systems and Institutions*.

²⁹³ Serrano-Velarde, K. 2014. 'Rising Above Institutional Constraints? The Quest of German Accreditation Agencies for Autonomy and Professional Legitimacy.' *Minerva* 52(1): 97-118

Further national-level efforts are exemplified by a Times Higher Education article (2015) on the aim to strengthen city–university collaboration to enable autonomy and self-governance of universities.²⁹⁴

The multitude of approaches and responses to academic freedom reflects how multi-faceted the topic is, which may include a weighing of factors and options to ensure a balance between accountability and autonomy, while enabling academic freedom as a whole.²⁹⁵

²⁹⁴ Times Higher Education (2015). *The political sphere*. TES: 5–6

²⁹⁵ Berdahl, Robert. 2010. *Thoughts about academic freedom, autonomy and accountability*. Observatory Magna Charta Universitatum. As of 30 May 2019: http://www.magna-charta.org/resources/files/Berdahl_2010Thoughts_Abou_Academic_Freedom_Autonomy_and_Accountability.pdf;
Huisman, Jeroen. 2018. 'Accountability in Higher Education.' *Encyclopedia of International Higher Education Systems and Institutions*.

3 FUTURE EDUCATION SCENARIOS FOR THE EUROPEAN UNION

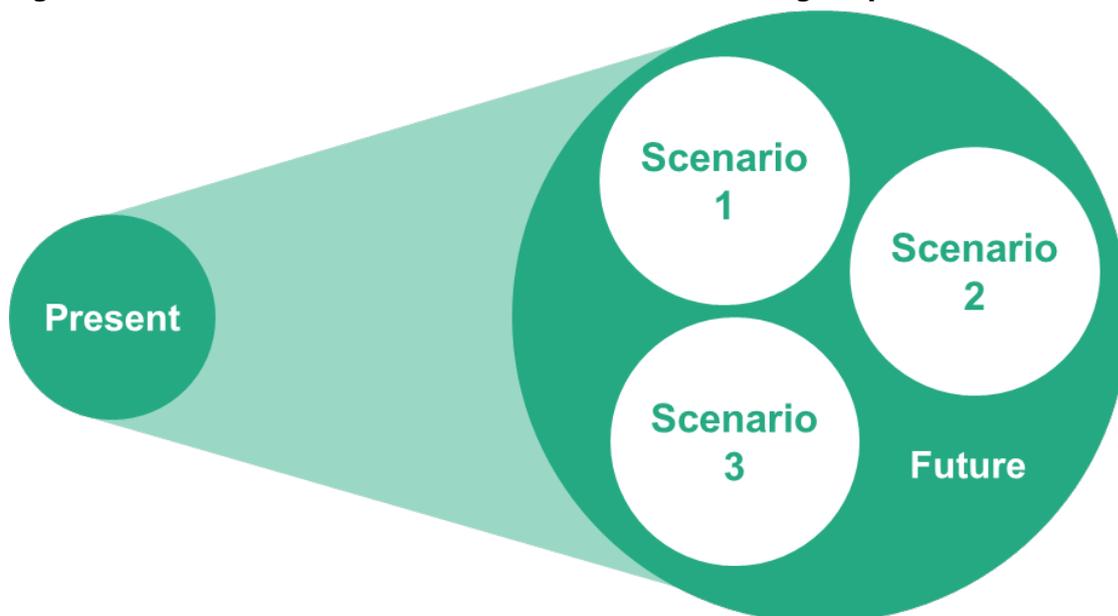
As indicated in section 1.4, the objective of the study is to examine possible scenarios (both aspirational and disruptive) for future developments in the education and youth sectors, and to identify and assess the policy implications of these scenarios. Based on findings from the literature review, a structured methodology was used to examine the interaction of the key drivers of the education and youth sectors with wider social, economic and technological factors and the uncertainty in the future development of these factors to develop a range of future education scenarios. The resulting scenarios are multi-faceted, internally consistent and representative of the wide spectrum of possible futures at the EU level in 2035. This chapter provides a brief introduction to scenario methodology and presents the four future education scenarios developed for the European Union in 2035. Case studies are then used to develop some of the themes from the scenarios in a selection of Member States.

3.1 Introduction

While education and youth are the focus of this study, these sectors are highly interconnected with other social and economic factors – for example population, the economy, unemployment levels, the use of future technology in both the workplace and education, and political climate (see Table 9, Annex B). Hence, exploring possible futures involves substantial uncertainty. **Scenarios** are long-standing tools that are used to address this uncertainty (Pillkahn, 2008).

Scenarios are not forecasts. They do not propose a most likely future based on knowledge of current trends, but are designed to be representative of a wide spectrum of possible future states. This is illustrated in Figure 3. It is important that scenarios should be **plausible** – in other words that the combination of factors and the future values of the factors (projections) that characterise a scenario could reasonably occur together. Hence plausible implies that scenarios are not only possible but also internally **consistent**, i.e. that the scenario makes sense overall. It says nothing however about the probability of the future state.

Figure 3. Plausible future scenarios should reflect a wide range of possible future states



In this study a structured-scenario development methodology is used. A key feature of this approach is that the scenarios are developed based on a multi-factor, multi-sector, interrelated system and do not rely on one or two main drivers. They therefore provide an internally consistent, and, in that sense, plausible picture of what may happen both in the education sector and for wider society. The methodology is described in detail in Annex B.

3.2 Future Scenarios

We focus on developing scenarios for 2035. The year 2035 was selected as it is far enough in the future for the impact on policies enacted in the next parliamentary period to be assessed, but close enough that scenarios can be developed that are both consistent and plausible based on current perspectives.^{296, 297} All potential scenarios are described in terms of a “skeleton” of factors that may have developed in different ways by 2035. We identify four scenarios that represent a wide spectrum of possible futures and that are sufficiently differentiated from each other, in terms of education and wider societal development, to be informative from a policy-making perspective.

The four scenarios are:

- Fragmented Europe
- Aligned Europe
- Cold feet Europe
- Ostrich Europe

Each scenario has a subset of key **factors** that are the most important in determining the characteristics of that scenario. The effects of these factors on different sectors and age groups are developed differently across the scenario narratives in an internally consistent way. Each scenario is defined by the **projections** for the most important factors affecting the education system. The projections are what differentiate the different scenarios, and are displayed in Figure (see below).

²⁹⁶ By plausible we mean that the combination of factor projections that characterise a scenario could reasonably occur together. We do not consider how likely this combination may be. This is discussed further in Annex B.

²⁹⁷ For longer time frames, there is a risk that what is considered consistent and plausible from today’s perspective no longer holds. In this case, a black swan scenario be used to purposefully incorporating projections which are thought to be incompatible or inconsistent today

Figure 4. Factor projections for scenarios

Factors	Fragmented Europe	Aligned Europe	Cold-feet Europe	Ostrich Europe
Education population	↔	↑	↑	↔
Education financing	↔	↑	↑	↑
Immigration from outside the EU	↑	↑	↘	↓
Unemployment	↑	↓	↑	↔
Intra-EU labour mobility	↓	↑	↘	↓
Political climate	↓	↑	↘	↘
Business model of education	Market culture	Service culture	Service culture	Service culture
Criminal activities	↑	↓	↔	↓
Social inclusion	More inequalities	Fewer inequalities for younger generations	Fewer inequalities	Fewer inequalities amongst older generations
Structures & principles of EU education systems (co-operation)	↓	↑	↔	↓
Underlying technology trends (automation and AI)	Rollout with regional variation	Strong rollout EU-wide	Rollout with regional variation	Rollout with regional variation
Educational inclusion	Worse attainment for all	Better attainment for all	More re-skilling opportunities for adults	Better compulsory education attainment
Skills match	Poor match	Better match	Better match	Better match in some sectors, but not all
Personalisation	↓	↑	↑	↑
Education institution capacity	Over demand	Over offer	Matched	Over offer
Real GDP growth	↓	↑	↗	↗
Democratic participation and civil engagement	Less engagement by all	Increased engagement driven by youth	Engagement driven by older generations/ nationalism	Moderate engagement by all

Legend:

↑	Increase in factor projection	↓	Decrease in factor projection
↔	Continuation of current trends	↗ ↘	Slight/ marginal increase or decrease

The factors relating to education and employment have been derived from the background research undertaken for this study (see Chapter 2). Additional detail on wider factors was generated from consultation with experts on the team.

While the focus of this study is education and youth employment, their interaction with other sectors and population segments is an important aspect of the scenario process, and this is reflected in the factors used. This is summarised in Table 6 below.

Table 6. Mapping of challenges and issues in education and youth employment to scenario factors

Challenges and Issues	Development in scenarios
Social inclusion	This is captured in a single social inclusion factor that relates to the whole population. The impact on different age groups is developed in different scenarios.
Youth employment	A single <i>unemployment</i> factor is used. The impact on different age groups is developed in different scenarios.
Skills Mismatch	This is included in a single skills mismatch factor. It also covers the potential skills mismatch in adult education.
Migration	There are a number of factors relevant to youth migration: (net) <i>external immigration to the European Union</i> for both skilled and unskilled workers, <i>education population</i> and <i>social inclusion</i>
New forms of communication and political participation by young people	This is covered in the <i>democratic participation and civil engagement</i> factor but also relates to <i>underlying technology trends</i> and the <i>political climate</i> .
Academic freedom in higher education	Academic freedom is incorporated in the factor <i>structure and principles of the Member State educational institutions</i> . Its development in the scenarios is closely linked to the factor <i>political climate</i> . As freedom of speech and academic freedom are enshrined in Member State legislation and reflect national cultural norms, this issue is explored in more depth in some of the case studies.

The factors used in the scenarios are shown in italics. A full list of factors is presented in Annex B.

These factors and their projected development in the future provide only the bare bones of the scenarios, and the role of the scenario narratives is to bring these to life. This is done from the vantage point of 2035, looking back – as is customary in scenario writing – on how we arrived at this future point in time. Each scenario explores the details behind the factors: the key societal, economic and educational developments. Together, they also provide a glimpse of how people might live in this particular future.

The scenarios are presented in broad terms focusing on the EU level, and illustrative case studies are used to provide a more nuanced view from a Member State perspective. Not every factor is covered in each narrative. Rather, key trends and how they might lead to a future that differs from the present are identified. However, it is emphasised that qualitative factor projections reflect future uncertainty, and the scenarios are designed to be representative of a wide range of futures. They are all plausible but they are not equally likely.

3.2.1 Fragmented Europe

While society and industry have embraced digitalisation, albeit at different rates across the EU, the education system is failing to prepare students for this change and workers are not able to play their role in the labour market, with bad consequences for the economy and society.

Work

Automation and AI are becoming increasingly widespread and are now the norm in some sectors, replacing both skilled and unskilled jobs and creating new labour requirements. As “predicted” in the 2010s, most of the jobs of 2035 did not exist when the people currently fulfilling these jobs were in primary school. Given that yesterday’s students were not prepared for today’s jobs, the match between the skills produced by the education systems and the skills needed in the labour market is worse than ever. This is certainly a contributory factor to the ongoing poor economic performance; unemployment is high and for those who have a job, this job is often not in line with their studies or their career aspirations, and it is insecure.

Given the limited employment opportunities across Europe, intra-EU labour mobility is rather low and still decreasing, compared to 2020. Migration from outside the EU, on the other hand, has increased – both those with the right skills for the new job market and economic migrants, who mostly take on low-paid, insecure roles. Overall, this compensates for the ageing EU population, but is not widely popular.

Education

Given its failure to sufficiently address the labour market’s needs, education is not seen as part of the solution to address unemployment. While the overall funding available for education has been stable since 2020, the nature of this funding has changed – public funding for education has decreased and education has become a market, where only those who can afford it participate and eventually complete education. This reinforces educational exclusion and, as a result, social inequalities and social exclusion. This change in education provision has meant that the size of the educated population has not increased and there is more demand for courses, particularly those aimed at upskilling those beyond statutory school age. While some private education is excellent, the public sector offering has reverted to the ‘one size fits all’ approach of the previous century. Moreover, increasing pressure on higher education institutions to compete means that research co-operation is at an all-time low. This is not helped by the failure of Member States to secure funding for scientific research in the multi-annual agreements.

Society

Societal inequalities of previous decades have been exacerbated by the current economic situation. Those who are unemployed and not in education increasingly turn to illegal activities. There is a general feeling of insecurity – many young people work in the “gig” economy, mainly based on temporary work positions and short-term work engagements. This insecurity has been used to promote hate speech and aversion towards ethnic minorities and migrants. Online disinformation is pervasive.

The EU education system’s failure to adapt to change has added to the political disenfranchisement of recent years and economic woes, creating a perfect storm. There is an absolute breakdown of trust in the EU and civic engagement and democratic participation are at their lowest. Those who do vote, vote for nationalist parties and there is a sense that things can only get worse.

3.2.2 Aligned Europe

By 2035 technological innovation and the creation of many high-skilled jobs has led to a booming economy. Education has been at the top of the EU's spending agenda for the past fifteen years, with investment in technology-aided personalised learning creating a model of education that is more accessible to all.

Work

The EU is flourishing, with job-seekers from all over the world wanting to explore the economic and social opportunities it has to offer. An increasingly technology-driven Europe has resulted in the creation of many more jobs than have been replaced, and Member States have made it even easier for Europeans to seamlessly relocate across European borders. The booming economy and a learning-oriented policy environment have resulted in more generous education budgets across the EU, ensuring that the supply of highly skilled workers meets this new demand, as well as providing re-skilling opportunities to those whose jobs have been replaced by machines.

Education

Not only have education institutions invested early in science, technology, engineering and mathematics (STEM) subjects, but also in other academic areas, giving all students the chance to explore their talents to the fullest. With this new focus on STEAM subjects (adding arts to STEM), both the individual and societal value of study are recognised, resulting in a hub of creativity and cooperation across all fields. Harmonisation amongst EU educational institutions has streamlined the offering to the learner and, building on programmes like Erasmus+ and Marie Curie, student and researcher mobility within the EU continues to increase. Enhanced inter-disciplinary collaboration is also making the EU a global-leading destination for research and innovation.

Increased and more equally distributed funding, combined with an increasingly aligned and evidence-based approach to education, has led to more personalised learning where lesson plans are tailored to suit the individual learner's needs. This targeted evidence-based approach has led to better results at schools, with even the most disadvantaged students being given the chance to achieve their potential. Underpinned by EU programmes rolling out high-quality ICT across the continent, almost every student now explores the flexible ways of learning across the web, enabling rapid dissemination of knowledge. The new model of personalised and ICT-enabled education has led to increasing numbers of people choosing to return to school, as it facilitates a flexible, remote approach to learning that is compatible with hectic day-to-day lives and fully implements the concept of life-long learning.

Society

In 2035, EU public concern about climate change has become an ever-pressing issue. Observable effects of climate change on the environment, combined with criticism from the youth generations towards previous generations' failure to prevent these effects, has led to more engagement in political debate on the environment, as well as other social and economic issues. Students in all EU countries are keen on having their voices heard and this is quickly becoming a driving force for environmental, political and social change. Consequently, the EU now pays more attention to what the public wants than it has ever done before, resulting in policies shaped towards creating a more progressive and inclusive society; education policy is at the heart of this. Hence, people's attitudes towards the EU are favourable. It has not only recovered from the distrust that began to emerge around two decades ago, but enabled a true shared EU vision across its Member States and citizens.

3.2.3 Cold-feet Europe

Digitalisation has had a radical effect on the labour market, with fewer workers needed. While people are ready to take on the jobs of today, there is not enough demand for a skilled workforce. While digitalisation was supposed to support growth, the economic situation is not as good as expected, and society is concerned about what the future will bring.

Work

In 2035 the European economy is doing moderately well but the situation masks variations between Member States and there is concern for the future. Automation is seen as key to increasing productivity and has already replaced large numbers of jobs that people had in the 2020s. In some sectors AI is also starting to replace professional occupations that were previously considered safe. As a result, unemployment is generally on the rise, although new types of employment are being created to support the technology-led workplace, and there is still demand for skilled labour in some sectors. Labour mobility within the EU has not changed much over the last decade or so, and this is not enough to counteract unemployment.

Given the labour market conditions in the EU, the EU has been less attractive to migrants from outside – both skilled and economic migrants. Combined with an ageing population, this is concerning for the demographic situation in the EU, with the overall population increasing at a slower pace than before.

Education

The education population has increased, particularly with regard to continuous VET and adult learning. For those in employment, this reflects the increasing demand for new and updated skills in the labour market and the fact that workers constantly need to learn and prepare for the future. While some of this is supported by employers, most are doing this in their own time. This has led to concern in some quarters that women with children are disadvantaged both in terms of access to adult education but also the new types of employment that require workers to be flexible in their working hours. For unemployed people, who are now predominantly older, unemployment is seen by some as an opportunity to go back to school and acquire new skills, but others are less optimistic.

The EU recognised the need to adapt the educational sector to better match the changing labour market at a fairly early stage. As a consequence, public funding for education has also increased to meet learning demand, and schools are now able to respond to the demand for learning. However, given the economic situation, there are concerns about how sustainable this situation is in the long run. There has also been little appetite for expanding co-operation between higher education and research institutions as a way to support economic growth and employment in the longer term.

Society

The economic situation and employment prospects make the EU population concerned about the future. Distrust in public institutions is on the rise again, particularly in EU institutions that are seen as having failed to find a sustainable solution to change in the labour market environment, despite efforts in education. In contrast to the 2010s, when youth unemployment was the major concern, older people have been significantly affected by changes in the last decade and feel let down. Given the ageing population, the political voice of this group is important and is making itself heard. While there is still EU cooperation overall, future prospects in the short term are not promising and, given the varying performance across Member States, political parties are calling for less cooperation as a way to protect national economies and to solve labour market issues at national level.

3.2.4 Ostrich Europe

Although education funding is seen as critical, co-operation between Member States is in decline and education and labour market issues are discussed and addressed in isolation. While the economic situation might look good in the short term, and society is not particularly concerned about the future, there are clear indications that the situation is not sustainable.

Work

The structure of the economy in 2035 is not too dissimilar to that of 2020. Automation in manufacturing has continued its steady increase and there has been an expansion of employment in the ICT sector to support the increasing digitalisation of both homes and workplaces. But technology has not had the transformational impact forecast in the 2020s.

Despite the expansion and increased productivity in some sectors, economic growth remains sluggish and unemployment levels have also remained relatively constant.

This has been accompanied by lower migration from outside the EU (both skilled and unskilled workers) and reduced labour mobility within the region. Economic performance is part of the explanation, as the success of emerging economies has started to make them look more attractive. They are also welcoming; in stark contrast to the EU which is struggling to maintain a cohesive front on a range of issues, including migration. As moving within Europe is made harder, or at least that is the perception, young Europeans are starting to look outward for better opportunities. Although there is no official “brain drain”, there is much discussion about its likely impact as the issue of an ageing population drags on.

Education

The education population has remained stable; there has been a small increase in provision for adult learning, offset by a decline in children starting school. Schools and further education institutions have had a larger allocation of public funding to try and address the skills mismatch that was high on the education agenda in the 2010s. This has facilitated the personalisation of learning to the needs of learners. As a result there is a better match between educational outcomes and the skills required by the labour market, but this is really limited to ICT sectors. Hence, there is a concern that the EU education systems are failing to think “outside of the box” and prepare for future more radical changes to the workplace; not least as research and development into AI continues apace. More and more of this research is happening in private companies however, as co-operation between higher education institutions has been discouraged and academic freedoms are perceived as coming under threat.

The small overall increase in public funding and allocation decisions, driven by Member State priorities, has meant that the mainstream school and vocational sectors are relatively well funded, to the detriment of higher education. This may be a popular short-term move, but given the economic and demographic situation, there are concerns about how sustainable this situation is in the long run as students and researchers look to develop their careers outside the EU.

Society

Having overcome the turbulence of almost 20 years ago, Europeans remain relatively sanguine about the future and Europe. For older people, the rapid transformation of the workplace has not occurred, and younger people feel that they have better prospects, given the current focus of the education system. This is reflected in a reduction in youth criminality, and the demographic tension between young and old of the 2010s has reduced somewhat. However, researchers claim that the situation is not sustainable in the long run, which contrasts with people's optimism. This exacerbates the distrust for evidence and the role of expertise in policy-making.

4 POLICY IMPLICATIONS

In this chapter the scenarios are used to test a representative selection of policy options, and the implications for policy-makers are discussed (see approach in Annex C).

Based on research undertaken in the context of this study (reported in Chapter 2) and RAND Europe's research on education policies and programmes, the research team proposed five policy options that correspond to possible areas for development of the education and youth policy areas. These options all fall under the umbrella goal of supporting education systems in their objective of making today's learners become tomorrow's workers and citizens. These policy options were discussed and refined with four education and youth policy experts in an expert workshop held in Brussels in August 2019. These policy options are not comprehensive (i.e. they do not aim to represent the whole spectrum of possible options for policy development in the area of education and youth) nor mutually exclusive.

This chapter does not intend to present recommendations of what EU and national education authorities should do, but rather to illustrate how policy decisions play out in the different possible futures proposed in Chapter 3. This Chapter is the link between the recent past and present of education and youth in EU, as presented in Chapters 1 and 2, and the possible futures presented in Chapter 3.

In this chapter we first detail the policy options and their underlying assumptions, and then test them against the four future scenarios.

4.1 Policy option 1: Student-centred learning and flexible pathways

The first policy option focuses on student-centred learning and flexible pathways. The objective of this policy option is to ensure that all learners have access to the type of learning that suits their learning needs, and which reflects (1) the needs of the labour market (and what the learners need to learn to find a job); (2) what society needs them to learn to be active and engaged citizens and participate in democratic life; (3) what learners want and perceive that they need to learn; and (4) the need to be delivered in a way that is in line with the individual's learning style (pedagogical and teaching delivery). This approach would move from traditional "one size fits all" learning settings with a teacher and learners in a classroom towards a learner-centred, personalised approach to learning. A second aspect of this policy option is the possibility for the learner to be mobile in the education and training system at any time in their life and career, i.e. going back to school, changing pathways and having the chance to get recognition of their prior learning in different learning settings.

One key underlying assumption for this policy option to be successful/reach its objectives is that appropriate funding is in place to effectively support the policy. Moving to student-centred learning, like any pedagogical reform, requires a change in attitudes, which does not come without time and resources. Teachers need to be trained and equipped with the right tools. Student-centred learning also requires an appropriate teacher-student ratio (which can become harder as the education population increases), and in most cases, digital supporting tools. Transparency tools should be acceptable and understandable for both learners, authorities and employers, otherwise they will not be used, or used incorrectly.

Finally, researchers should have access to, collect, and analyse data about the implementation of the policy change in order to measure its effects and rectify them if necessary.

Investing in student-centred learning might imply reducing funding elsewhere in education, so trade-offs have to be considered carefully. To be in line with its objectives, personalisation should also be

done in an inclusive way, and not only be available for a category of advantaged students. Personalisation of learning should also not be done at the detriment of a basic set of skills that everyone should have, whatever their life and career aspirations are. There should be a reasonable balance between what everyone should know and what can be tailored to the needs of the learner.

4.2 Policy option 2: Inclusive digital learning

This policy option focuses on using digital learning to ensure that everyone is included in the move towards digitalisation of learning, irrespective of origins and where they learn from, to prevent anyone being further excluded from education, work and society.

This policy option starts from the assumption that the digitalisation of learning can take different paths and forms. There is a risk that digitalisation implies exclusion, as those excluded from society will miss the opportunities given by education if they do not have the skills and tools to fully participate. This will have implications on their future chances in life, including work-force participation and participation in democracy, in particular for younger generations. While education is usually seen as a tool for inclusion, it can deepen the social gap if not done in an inclusive way.

Digital learning should be accessible for all, in particular those who cannot fully participate in education due to their physical, geographical or social circumstances. Accessibility implies that infrastructure is in place to allow participation, such as broadband for online learning – even in remote and disaffected areas – and hardware (computers and tablets) and software that can help participation of vulnerable learners (e.g. visually impaired learners). Language provision should also be carefully considered. This implies that sufficient financial resources are in place to support the inclusive move to digital learning. Both teachers and learners must be prepared and have the right set of skills to take full advantage of the opportunities offered by digital learning. This will require time and resources.

Risks linked to digital learning are an over-marketisation of the learning environment. There is also a perceived higher risk of fraud than in traditional learning settings, even if this goes with a higher chance to detect fraud. Both learners and accreditation agencies should be reassured about the security of digital learning and protection of learners' data. Recognition of digital learning should also be in place to make sure that it is not considered an empty shell.

Another risk linked to digital learning is overestimating what digital learning can achieve, for instance at the expense of the role of the teacher. Digital learning should be developed as a supporting tool, but should not be developed as a way to replace the teacher. In relation to resources, while digital learning can be associated with saving costs in the long run, the objective behind the development of digital learning in an inclusive way should be to reach more people (of benefit if the education population increases) and in a better way, rather than cutting costs. This risk of misusing digital learning will be higher if education financing decreases in the future.

4.3 Policy option 3: Targeted investment in early years

This policy option focuses on investing in early years to erase/limit the effects of social disadvantage as early as possible in the education and training path. Besides "readjusting" inequalities, acting early is also a way to limit their perpetuation. Early years intervention can benefit children – both now and in the future – and also their families, in particular if the approaches are integrated with other family-support interventions. Investing in early years could be implemented by decreasing the age at which participation in education is mandatory, which would increase the education population. Overall, this

would likely contribute to education inclusion and – incidentally – social inclusion. Investing in early years could also have an effect on parents' labour market inclusion.

Investing in early years would also imply that financial resources should back up this investment. Unless the overall budget dedicated to education increases, these resources will support early years at the expense of other education and training sub-sectors, which is a risk that should be carefully considered. Another risk, if public funding is not sufficiently available, is the marketization of early childhood education and care provision.

Such an investment should imply that the authorities in charge of social services and education work hand-in-hand.

4.4 Policy option 4: Socio-emotional development and soft skills

This policy option focuses on socio-emotional development of learners (in particular at a young age) and soft skills to prepare today's students to be tomorrow's workers and citizens, whatever the future brings. This means learning to learn the skills needed to perform the jobs of the future, even if what they are and entail is unknown. It also means being resilient and able to adapt to change. "Eternal" skills also include those that will be required no matter what the future of work looks like, including communication skills and interacting with others.

To prepare future society, navigating in the information age – in particular, the digital world – seems highly important. Media literacy, in particular in the online environment, and digital navigating skills should be integrated in curricula. This would contribute to ensuring that young people are able to assess the reliability of information sources and navigate the internet responsibly and detect and react to disinformation.

One risk linked to this approach is that investment in these skills is to the detriment of hard/technical skills that are known to be needed in today's labour market, but could also be needed tomorrow. Investing in socio-emotional development of learners and soft skills should be done in a balanced way, taking into consideration current and future needs.

4.5 Policy option 5: Strengthening the teaching profession

Teachers are instrumental in the learning process, whatever the supporting tools are. Reinforcing the teaching profession should be achieved by strengthening teachers' education, and providing training to ensure that they are ready for the challenges ahead. This would also mean revalorising the profession, including through financial incentives and investment in teachers, which would be part of the overall education financing. If the overall education financing remains stable, investing in teachers could be done at the expense of learners or infrastructure, which should be carefully considered. Also, a strengthened teaching profession should not mean fewer teachers (otherwise the student-teacher ratio would increase or school capacity would decrease, with a risk of educational exclusion in both cases).

Investing in teachers could be combined with better social inclusion, in particular if accompanied by more personalisation or better preparedness for diversity in the classroom. Better teaching could incidentally contribute to better education inclusion, labour-market participation and social inclusion.

Table 7 below summarises the policy options presented above against each of the future scenarios.

Table 7. Policy options versus future scenarios

Policy option	Scenario 1– Fragmented Europe	Scenario 2 – Aligned Europe	Scenario 3 – Cold-feet Europe	Scenario 4 – Ostrich Europe
<p>1 – Student-centred learning and flexible pathways</p>	<p>This policy option would contribute to scenario 1 if the student-centred learning and flexible pathways are offered only to a category of advantaged learners – this would be likely to lead to a market culture and over-demand of education (more students than the education institutions can accommodate).</p> <p>The skills mismatch would remain quite high, given that the match would benefit only part of the population.</p>	<p>Student-centred learning would be compatible with an aligned Europe scenario, with personalised learning and better education inclusion, leading to a better skills match, lower unemployment and fewer inequalities.</p>	<p>Student-centred learning would be compatible with a cold-feet Europe scenario, with personalised learning and better education inclusion leading to fewer inequalities, but depending on what the demand for labour is, this might not be effective in reducing unemployment.</p>	<p>Personalisation and flexible pathways could be compatible with this scenario, but might not be sufficient if it concerns some sector only and work only as a short term solution.</p>

Policy option	Scenario 1– Fragmented Europe	Scenario 2 – Aligned Europe	Scenario 3 – Cold-feet Europe	Scenario 4 – Ostrich Europe
2 – Inclusive digital learning	If digital learning is not delivered in an inclusive way, it is very likely to contribute to increasing social inequalities, rather than reducing them.	Digital learning is an enabler of personalised learning. If done in an inclusive way, it is likely to lead to better education inclusion, which would lead to a better skills match, lower unemployment and fewer inequalities.	If done in an inclusive way, digital learning is likely to lead to better education inclusion, in particular for those workers who need to adapt to changes in the labour market (e.g. older workers), but they need to have basic skills to fully benefit from the opportunities that digital learning can offer in this context.	Deployed at all levels, digital learning could effectively contribute to improve education attainment overall.

Policy option	Scenario 1– Fragmented Europe	Scenario 2 – Aligned Europe	Scenario 3 – Cold-feet Europe	Scenario 4 – Ostrich Europe
<p>3 – Targeted investment in education, focusing on the early years</p>	<p>Targeted investment in the early years could still lead to a fragmented Europe scenario, but if social inequalities continue to increase, it suggests that investment was not done the right (inclusive) way, nor at the right level (too late in the education path, when inequalities are more difficult to erase).</p>	<p>Focusing on the early years would contribute to fewer inequalities and better education attainment for all, and incidentally lower unemployment, that is if there is a good match between the skills produced by the education system and the needs of the labour market.</p>	<p>Targeted investment in early years would be beneficial for the education and social system as a whole, especially if not done at the expense of other sectors (education financing would need to increase overall). With this scenario the investment is likely to have benefitted those who need re-skilling rather than the younger generations, as ‘reactive’ investment rather than prospective investment in the future.</p>	<p>With this scenario the investment is likely not to have been done in a targeted way to effectively address the skills mismatch for the present, but without preparing what comes next.</p>

Policy option	Scenario 1– Fragmented Europe	Scenario 2 – Aligned Europe	Scenario 3 – Cold-feet Europe	Scenario 4 – Ostrich Europe
4 – Focus on socio-emotional development, inter-disciplinarity and soft skills, including learning to learn	If there is still a poor match between the skills offered by the education system and the needs of the labour market, it would still be that an investment in socio-emotional development and soft skills would be beneficial to society, but at the expense of hard skills. This indicates that a right balance needs to be found between these categories of skills. Also learning to learn would potentially prevent or limit the risks of skills mismatch.	Focusing on socio-emotional development, inter-disciplinarity and soft skills, including learning to learn is a pre-condition to ensure learners are prepared to become tomorrow’s workers and citizens, whatever the future brings. This would certainly be likely to lead to better and increased social and civic engagement, driven by the young generations.	With this scenario, older generations will have been able to adapt to change but younger generations are concerned about their own future, and are not prepared to address future changes in the workplace.	With this scenario, older generations will have been able to adapt to change and younger generations are confident about their own future. However, there are concerns that younger generations are not prepared to address future changes in the workplace, and the lack of awareness adds to the difficulty of addressing this issue. This suggests that investment in soft skills was done reactively and focusing on short-term objectives rather than preparing for the future.

Policy option	Scenario 1– Fragmented Europe	Scenario 2 – Aligned Europe	Scenario 3 – Cold-feet Europe	Scenario 4 – Ostrich Europe
<p>5 – Reinforcing the teaching profession</p>	<p>A strong teaching profession could still be compatible with a fragmented Europe, for instance in the case where only some categories of teachers are valued and given the resources they need to excel at their job. This would lead to market culture in education and would incidentally increase social inequalities among both teachers and learners.</p>	<p>An aligned Europe does not seem possible without a strong teaching profession, in a society that recognises the role teachers have to play in shaping tomorrow’s workers and citizens. A strong teaching profession also goes together with adaptation to change, e.g. embracing teachers’ shifted role in the context of student-centred learning and digital learning.</p>	<p>A cold-feet Europe is likely to be compatible with a reinforcement of the teaching profession, which is necessary to embrace changes in the education systems. However, concerns about younger generations being prepared for the future are likely to be blamed on the education system, and it is important to ensure that the shift towards more inclusive teaching is not reversed before it can deliver on its potential.</p>	<p>This scenario is compatible with a reinforcement of the role and status of teachers, who managed to adapt to the changes in their profession. However, their status is likely to be at risk if another crisis hits Europe.</p>

4.6 Policy implications: Opening up the education systems to better serve the EU populations

As introduced above in section 4, the policy options presented in section 4.1-4.5 are not comprehensive nor mutually exclusive. This set of policy options falls under the umbrella goal of opening up the education system to better serve our populations. This means ensuring that learning is in line with the needs of learners (their aspirations, capacities and learning pace), the needs of the labour market and the needs of society, so that all learners become full participants in both the labour market and society. The combination of these policy options is actually what our research found would be desirable for future development of education and youth in the EU.

These policy options are presented in terms of potential policy priorities, which could be integrated in education and training system reforms, or take the form of a policy strategy or programme to support a policy priority in question. Policy options are presented in a way that is neutral and detached from the specifics of a given education and training system, so that potentially any of the forms of policy actions could be taken and considered anywhere in the EU, at EU, national or local level, whatever the system is.

5 REFERENCES

- #FridaysForFuture, n.d., *About #FridaysForFuture*. As of 31 May 2019: <https://www.fridaysforfuture.org/about>.
- 2013/112/EU: Commission Recommendation of 20 February 2013 Investing in children: breaking the cycle of disadvantage. OJ L 59, 2.3.2013, p. 5–16. As of 21 August 2019: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32013H0112>
- ALLEA, EUA and Science Europe. (2019). *Academic freedom and institutional autonomy: Commitments must be followed by action. Joint statement*. As of 13 August 2019: <https://eua.eu/downloads/content/academic%20freedom%20statement%20april%202019.pdf>.
- AStA Hamburg (2019). *News*. As of 21 August 2019: <https://www.asta.uni-hamburg.de/1-ueber-uns/1-news/2019-03-11-demoauf-ruf-fff.html>.
- Bakker, T. P. and de Vreese, C. (2011). *Good News for the Future? Young People, Internet Use, and Political Participation*. *Communication Research* 38(4): 451-470.
- Bank, E. I. (2019). *Skill Shortages in Skill Mismatch in Europe: A Review of the Literature*. EIB Working Papers 2019/05.
- Barrett, M. and Zani, B. (2015). *Political and Civic Engagement. Multidisciplinary Perspectives*. New York: Routledge.
- Bennett, L., A. Segerberg and Walker, S. (2014). *Organization in the crowd: peer production in large-scale networked protests*. *Information, Communication & Society* 17(2): 232-260.
- Berdahl, R. (2010). *Thoughts about academic freedom, autonomy and accountability*. *Observatory Magna Charta Universitatum*. As of 30 May 2019: http://www.magna-charta.org/resources/files/Berdahl_2010Thoughts_Abou_Academic_Freedom_Autonomy_and_Accountability.pdf.
- Bessant, J. and Watts, R. W. (2014). *'Cruel optimism': a southern theory perspective on the European Union's Youth Strategy, 2008–2012*. *International Journal of Adolescence and Youth* 19(sup1): 125-140.
- Budria, S. (2011). *Are Educational Mismatches Responsible for the "Inequality Increasing Effect" of Education?*. *Social Indicators Research* 102(3): 409-437.
- Camilleri, R. (2016). *Global Education and Intercultural Awareness in eTwinning*. *Cogent Education* 3(1).
- Cassells, D., Gilleran, A., Morvan, C. and Scimeca, S. (2016). *Growing Digital Citizens. Developing Active Citizenship Through eTwinning*. As of 21 August 2019: https://www.etwinning.net/eun-files/book2016/eTwinningBook_2016.pdf.
- Castaño Muñoz, J., Redecker, C., Vuorikari, R., and Punie, Y. (2013). *Open Education 2030: planning the future of adult learning in Europe*. *Open Learning: The Journal of Open, Distance and e-Learning*, 28(3), 171-186.
- Cavallini, S., Soldi, R., Utma, M. A. and Errico, B. (2018). *Adressing Brain Drain: The Local and Regional Dimension*. European Committee of the Regions.
- Cedefop (2018). *Insight into Skill Shortages and Skill Mismatch. Learning from Cedefop's European Skills and Jobs Survey*. Luxembourg: Publications Office. Cedefop reference series; No 106.
- Central European University (2017). *CEU and TUM Sign Cooperation Agreement*. As of 30 May 2019: <https://www.ceu.edu/article/2019-05-07/ceu-and-tum-sign-cooperation-agreement>.
- Chawinga, W. D. (2017). *Taking social media to a university classroom: teaching and learning using Twitter and blogs*. *International Journal of Educational Technology in Higher Education* 14(1): 3.

- Chevalier, T. (2019). *Political Trust, Young People and Institutions in Europe*. A Multilevel Analysis. *International Journal of Social Welfare* 0: 1-13.
- CNN (22 October 2019). *Hungary's PM bans gender study at colleges saying 'people are born either male or female*. As of 22 July 2019: <https://www.cnn.com/2018/10/19/europe/hungary-bans-gender-study-at-colleges-trnd/index.html>
- COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS Draft 2015 Joint Report of the Council and the Commission on the implementation of the renewed framework for European cooperation in the youth field (2010-2018). As of 21 August 2019: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2015:429:FIN>.
- Corbett, A., & Gordon, C. (2018). *Academic Freedom in Europe: The Central European University Affair and the Wider Lessons*. *History of Education Quarterly* 58(3): 467-74.
- Council of the European Union (2018). Council Recommendation of 22 May 2018 on promoting common values, inclusive education, and the European dimension of teaching. ST/9010/2018/INIT. OJ C 195, 7.6.2018, p. 1–5.
- Dahl, V., Amnå, E., Banaji, S., Landberg, M., Šerek, J., Ribeiro, N., Beilmann, M., Pavlopoulos, V. and Zani, B. (2018). *Apathy or alienation? Political passivity among youths across eight European Union countries*. *European Journal of Developmental Psychology*, 15(3), 284-301.
- Department for Business, Innovation & Skills (2013). *Government Evidence on EU Action to Tackle Youth Unemployment. Report to the EU Sub-committee on the Internal Market, Infrastructure and Employment*.
- DG COMM Public Opinion Monitoring Unit (2014). *Post-election survey 2014*. Brussels: European Parliament: 3-6.
- Education Authority (NI) (2017). *Interim Strategic Plan 2017-2027*. As of 22 July 2019: https://strategicplan.eani.org.uk/documents/EA_Strategic_Plan_2017.pdf;
- Education Scotland (2016). *Delivering Excellence and Equity in Scottish Education – A Delivery Plan for Scotland*. As of 22 July 2019: <https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2016/06/delivering-excellence-equity-scottish-education-delivery-plan-scotland/documents/00502222-pdf/00502222-pdf/govscot%3Adocument/00502222.pdf>;
- Eichhorst, W. and Neder, F. (2014). *Youth Unemployment in Mediterranean Countries*. IZA Policy Papers, IZA - Institute of Labor Economics 80.
- Enyedi, Z. (2018). *Democratic Backsliding and Academic Freedom in Hungary*. *Perspectives on Politics* 16(4): 1067-74.
- EUA (2019). *EUA, Allea and Science Europe join forces on academic freedom and autonomy*. As of 13 August 2019: <https://eua.eu/news/297:eua-allea-and-science-europe-join-forces-on-academic-freedom-and-autonomy.html>.
- Euractiv (2014). *Eurobarometer: Education and Training Don't Match Available Jobs*. As of 12 August 2019: <https://www.euractiv.com/section/social-europe-jobs/news/eurobarometer-education-and-training-don-t-match-available-jobs/>.
- Eurochild (2015). *Is Europe Doing Enough to Invest in Children? 2015 Eurochild Report on the European Semester*. As of 21 August 2019: https://www.eurochild.org/fileadmin/public/05_Library/Thematic_priorities/02_Child_Poverty/Eurochild/Eurochild_SemRep_FINAL.pdf.

- Eurofound (2015). *Social Inclusion of Young People*. Luxembourg: Publications Office of the European Union.
- Eurofound (2016). *Exploring Diversity of NEETs*. Luxembourg: Publications Office of the European Union.
- European Commission (2018). *EU Budget for the Future: European Solidarity Corps beyond 2020*. As of 2 June 2019: https://ec.europa.eu/commission/sites/beta-political/files/budget-may2018-solidarity-corps-beyond-2020_en.pdf.
- European Commission (2018). *Ex ante evaluation accompanying the document Proposal for a Regulation of the European parliament and of the Council establishing the European Solidarity Corps programme*.
- European Commission (2016). *Education and Training Monitor 2016*. As of 11 March 2019: http://www.cnedu.pt/content/noticias/internacional/monitor2016-summary_en.pdf.
- European Commission (2018). *Country Report Spain 2018*, As of 29 July 2019: <https://ec.europa.eu/info/sites/info/files/2018-european-semester-country-report-spain-en.pdf>
- European Commission (2018). *Education and Training Monitor 2018*. As of 11 March 2019: <https://ec.europa.eu/education/sites/education/files/document-library-docs/volume-1-2018-education-and-training-monitor-country-analysis.pdf>.
- European Commission (2018). *Future of Learning Package*. As of 11 March 2019: https://ec.europa.eu/commission/news/future-learning-package-2018-jan-17_en.
- European Commission (2018). *Mid-term evaluation of the Erasmus+ programme (2014-2020)*.
- European Commission (n.d.). *Entrepreneurship education*. As of 11 March 2019: https://ec.europa.eu/growth/smes/promoting-entrepreneurship/support/education_en.
- European Commission (n.d.). *EU Youth Dialogue*. As of 21 August 2019: https://ec.europa.eu/youth/policy/youth-strategy/euyouthdialogue_en.
- European Commission (n.d.). *Projects and studies on entrepreneurship education*. As of 11 March 2019: https://ec.europa.eu/growth/smes/promoting-entrepreneurship/support/education/projects-studies_en.
- European Commission (n.d.). *The Entrepreneurship 2020 Action Plan*. As of 11 March 2019: https://ec.europa.eu/growth/smes/promoting-entrepreneurship/action-plan_en.
- European Commission (n.d.). *Towards a European Education Area*. As of 11 March 2019: https://ec.europa.eu/education/education-in-the-eu/european-education-area_en.
- European Commission (n.d.). *Youth and Migrants. Policy Support*. As of 21 August 2019: https://ec.europa.eu/youth/policy/implementation/migration_en.
- European Commission, EACEA and Eurydice (2018). *The European Higher Education Area in 2018: Bologna Process Implementation Report*. Luxembourg: Publications Office of the European Union.
- European Higher Education Area (2009). *The Bologna Process 2020 - The European Higher Education Area in the new decade*. As of 21 August 2019: <http://ehea.info/media.ehea.info/file/20090223-Ostend/54/2/BFUG Board CZ 19 4 draft communique 200209 594542.pdf>.
- European Higher Education Area (n.d.). *European Higher Education Area and Bologna Process*. EHEA. As of 29 May 2019: <http://www.ehea.info/>.
- European Investment Bank (2019), *Skill shortages and skill mismatch in Europe: A review of the literature*, EIB Working Paper 2019/05.
- European Parliament (2017). *Erasmus 2021-2027. The Union programme for education, training, youth and sport*. European Parliament Briefing. As of 21 August 2019:

- [http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/628313/EPRS_BRI\(2018\)628313_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/628313/EPRS_BRI(2018)628313_EN.pdf).
- European Parliament (2018). *Ensuring high-quality job creation from EU funding programmes: How can the best practice of Horizon 2020 be better integrated into other programmes (ESF, Youth Guarantee, Globalisation Fund)?* Study requested by the CONT Committee. As of 21st August 2019: [http://www.europarl.europa.eu/RegData/etudes/STUD/2018/603832/IPOL_STU\(2018\)603832_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2018/603832/IPOL_STU(2018)603832_EN.pdf).
 - European Parliament (2019). *Eurobarometer: Post-election survey 2019 – First results*. As of 21 August 2019: <https://www.europarl.europa.eu/at-your-service/de/heard/eurobarometer/post-election-survey-2019-first-results>.
 - European Parliament. (2019). *Climate activist Greta Thunberg urges MEPs to put words into action*. European Parliament Press Room. As of 31 May 2019: <https://www.europarl.europa.eu/news/en/press-room/20190410IPR37531/climate-activist-greta-thunberg-urges-meps-to-put-words-into-action..>
 - European Social Network (2016). *Investing in Children's Services, Improving Outcomes: Executive Summary*. As of 21 August 2019: https://www.esn-eu.org/sites/default/files/publications/FINAL_Executive_summary_EN.pdf.
 - European Students' Union (2011). *ESU Plan of Work 2012*. European Students' Union.
 - European Union (2019). *Assessment of tools and deliverables under the framework for European cooperation in education and training (ET2020)*. Luxembourg: Publications Office of the European Union. As of 15 August 2019: <https://publications.europa.eu/en/publication-detail/-/publication/e8f0ed5b-5a8e-11e9-9151-01aa75ed71a1>.
 - European Union. (2012). *Charter of Fundamental Rights of the European Union*. 2012/C 326/02. As of 1 March 2019: <https://www.refworld.org/docid/3ae6b3b70.html>.
 - European University Association (2017). *University Autonomy in Europe III The Scorecard 2017*. Brussels: European University Association (EUA).
 - Eurostat (2018). *Participation in early childhood education by sex*. As of 14 August 2019: https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=sdg_04_30&plugin=1.
 - Eurostat (2018). *Statistics on young people neither in employment nor in education or training*. As of 11 March 2019: https://ec.europa.eu/eurostat/statistics-explained/index.php/Statistics_on_young_people_neither_in_employment_nor_in_education_or_training#Young_people_neither_in_employment_nor_in_education_or_training.
 - Eurostat (2018). *Young People - Migration and Socioeconomic Situation*. As of 21 August 2019: https://ec.europa.eu/eurostat/statistics-explained/index.php/Young_people_-_migration_and_socioeconomic_situation.
 - Eurostat (2018). *Young People - Social Inclusion*. As of 21 June 2019: https://ec.europa.eu/eurostat/statistics-explained/index.php/Young_people_-_social_inclusion.
 - Eurostat (2019). *Children at risk of poverty or social exclusion*. As of 8 August 2019: https://ec.europa.eu/eurostat/statistics-explained/index.php/Children_at_risk_of_poverty_or_social_exclusion#General_overview.
 - Eurostat (2019). *Education and Training 2020*. As of 15 August 2019: <https://ec.europa.eu/eurostat/web/education-and-training/eu-benchmarks>.
 - Eurostat (2019). *People at risk of poverty or social exclusion by age and sex (dataset ilc_peps01)*. As of 21 August 2019: https://ec.europa.eu/eurostat/web/products-datasets/-/tepsr_lm410.

- Eurostat (2019). *Unemployment Statistics*. As of 11 March 2019: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Unemployment_statistics.
- Eurostat (n.d.). *EU Benchmarks*. As of 8 August 2019: <https://ec.europa.eu/eurostat/web/education-and-training/eu-benchmarks>.
- Eurostat (n.d.). *Profile of The Digital Society & Business*. As of 21 August 2019: <https://ec.europa.eu/eurostat/cache/infographs/ict/bloc-1.html>.
- Eurydice (2017). *National Student Fee and Support Systems in European Higher Education – 2017/18*. As of 22 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/national-student-fee-and-support-systems-european-higher-education-%E2%80%93-201718_en
- Eurydice (2018). *United Kingdom – England Overview*. As of 22 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/united-kingdom-england_en
- Eurydice (2019). *France overview*. As of 18 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/france_en
- Eurydice (2019). *France overview*. As of 18 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/france_en
- Eurydice (2019). *Hungary Overview*. As of 22 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/hungary_en
- Eurydice (2019). *Hungary: Ongoing Reforms and Policy Developments*. As of 22 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/ongoing-reforms-and-policy-developments-29_en
- Eurydice, (2019). *Spain overview*, As of 29 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/spain_en
- Ferrer-Martin, R. M., Sepulveda, M. R., Reyes-Zurita, F.J., Medina-O'Donnell, M., Perez-Jimenez, A., Trenzado, C. E., and E. Rufino-Palomares, E. E. (2014). *M-Learning: A Novel Methodology for Teaching and Learning at the University*. In L. G. Chova, A. L. Martinez & I. C. Torres (eds.) 'Edulearn14: 6th International Conference on Education and New Learning Technologies'. Valencia: IATED-Int Assoc Technology Education and Development. 1182-5.
- Floreani, V. A. (2014). *Fixing Europe's Youth Unemployment and Skills Mismatch, Can Public Financial Support to SMEs be effective? The Case of the European Commission and European Investment Bank Joint Initiatives*.
- France Stratégie (2017). *Quelle autonomie pour les établissements scolaires ?*. France Stratégie : Paris. As of 18 July 2019: https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/2017-2027-actions-critiques-autonomie-etablissements_1.pdf
- Gebel, M. and Giesecke J. (2016). *Does Deregulation Help? The Impact of Employment Protection Reforms on Youths' Unemployment and Temporary Employment Risks in Europe*. *European Sociological Review* 32(4): 486-500.
- Gillies, D. and Mifsud, D. (2016). *Policy in transition: the emergence of tackling early school leaving (ESL) as EU policy priority*. *Journal of Education Policy* 31(6): 819-832.
- Gouvernement.fr (2018). *Stratégie de prévention et de lutte contre la pauvreté*. As of 18 July 2019: <https://www.gouvernement.fr/action/strategie-de-prevention-et-de-lutte-contre-la-pauvrete>
- Harte, E., Hofman, J., and Sikiaridi, A., (2016). *The Role of the European Social Fund in Supporting Childcare Provision in the European Union*. RAND Europe.
- Hennis, T. (2017). *Engaging at-risk youth through self-directed learning*. *Italian Journal of Educational Technology* 25(1): 18-30.

- House of Lords: European Union Committee, (2016), *Children in crisis: unaccompanied migrant children in the EU*, HL Paper 34. As of 23 August 2019: <https://publications.parliament.uk/pa/ld201617/ldselect/ldeucom/34/34.pdf>
- Howarth C., and Andreouli E. (2014). 'Changing the context': tackling discrimination at school and in society. *International Journal of Educational Development*. 41:184-191.
- Huisman, J. (2018). *Accountability in Higher Education*. Encyclopedia of International Higher Education Systems and Institutions.
- Independent Schools Council. (n.d.). *Research*. As of 22 July 2019: <https://www.isc.co.uk/research/>
- Janta, B. and Harte, E. (2016). *Education of Migrant Children: Education Policy Responses for the Inclusion of Migrant Children in Europe*. RAND Europe.
- Janta, B., van Belle, J. and Stewart, K. (2016). *Quality and Impact of Centre-based Early Childhood Education and Care*. RAND Europe.
- Karran, T. and Mallinson, L. (2017). *Academic Freedom in the U.K.: Legal and Normative Protection in a Comparative Context*. University and College Union.
- Kovacheva, S. (n.d.). *EU-CoE Youth Partnership Policy Sheet Social Inclusion*.
- Kretsos, L. (2014). *Youth policy in austerity Europe: the case of Greece*. *International Journal of Adolescence and Youth* 19(sup1): 35-47.
- Lanning, T. and Rudiger, K. (2012). *Youth Unemployment in Europe: Lessons for the UK*. IPPR. As of 21 August 2019: https://www.ippr.org/files/images/media/files/project/2012/07/Youth-unemployment-in-Europe-briefing_11July2012.pdf.
- Lavrijsen, J. and Nicaise, I. (2015). *Social Inequalities in Early School Leaving: The Role of Educational Institutions and the Socioeconomic Context*. *European Education* 47(4): 295-310.
- Leiter B. (2017). *Why Academic Freedom?*. In D. Downs & C. Supernant (eds.) 'The value and Limits of Academic Speech: Philosophical, Political, and Legal Perspectives'. Routledge.
- Lodovici, M. S. and Semenza, R. (2012). *Precarious Work and High-Skilled Youth in Europe*.
- MacDonald, R. and Giazitzoglu, A. (2019). *Youth, enterprise and precarity: or, what is, and what is wrong with, the 'gig economy'?* *Journal of Sociology*: 1440783319837604.
- Matei, L. and Iwinska, J. (2018). *Diverging Paths? Institutional Autonomy and Academic Freedom in the European Higher Education Area*. In A. Curaj, L. Deca & R. Pricopie (eds.) 'European Higher Education Area: The Impact of Past and Future Policies'. 345-68. Cham: Springer International Publishing.
- McGuinness, S., Pouliakas, K., and Redmond, P. (2017). *How Useful is the Concept of Skills Mismatch?* IZA Discussion Papers.
- Ministère de l'Éducation Nationale et de la Jeunesse (2018). *Ensemble pour l'école Inclusive*. As of 18 July 2019: https://cache.media.education.gouv.fr/file/07_-_Juillet/80/0/DP_Ensemble_pour_l_ecole_inclusive_complet_984800.pdf;
- Ministère de l'Éducation Nationale et de la Jeunesse (2019). *'Pour une École de la confiance : l'instruction obligatoire à 3 ans'*. As of 18 July 2019: <https://www.education.gouv.fr/cid140324/pour-une-ecole-confiance-instruction-obligatoire-ans.html>
- Ministère de l'Éducation Nationale et de la Jeunesse (2019). *L'état de l'école 2018. 29 indicateurs sur le système éducatif français*. N.28. Ministère de l'Éducation Nationale et de la Jeunesse : Paris. As of 18 July 2019: https://cache.media.education.gouv.fr/file/etat28/13/5/depp-2018-ee_1043135.pdf

- Ministerio de Educación y Formación Profesional (2019). "Estadística del Gasto Público en Educación".
- Ministry of Education and Research (n.d.), *Pre-school, basic and secondary education*, As of 26 July 2019: [Republic of Estonia \(n.d.\), Pre-school, basic and secondary education, https://www.hm.ee/en/activities/pre-school-basic-and-secondary-education](https://www.hm.ee/en/activities/pre-school-basic-and-secondary-education)
- Mitrakos, T., Tsakoglou, P. and Cholezas, I. (2010). *Determinants of youth unemployment in Greece with an emphasis on tertiary education graduates*. Economic Bulletin 26: 21-62.
- Motti-Stefanidi, F. and Cicognani, E. (2018). *Bringing the European Union closer to its young citizens: Youth active citizenship in Europe and trust in EU institutions*. European Journal of Developmental Psychology 15(3): 243-249.
- Müller, W. (2005). *Education and youth integration into European labour markets*. International Journal of Comparative Sociology, 46(5-6), 461-485.
- Muñoz de Bustillo Llorente, R., Sarkar, S., Sebastian, R. and Antón, J.-I. (2018). *Educational mismatch in Europe at the turn of the century: Measurement, intensity and evolution*. International Journal of Manpower 39(8): 977-995.
- National Audit Office (2018). *Converting Maintained Schools to Academies*. As of 22 July 2019: <https://www.nao.org.uk/press-release/converting-maintained-schools-to-academies/>Eurydice (2019). *Hungary: Ongoing Reforms and Policy Developments*. As of 22 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/ongoing-reforms-and-policy-developments-29_en
- Nemzeti Jogszabálytar (2011). *Magyarország Alaptörvénye*. As of 22 July 2019: http://njt.hu/cgi_bin/njt_doc.cgi?docid=140968.356004
- Nikolov, A., Nikolova, D., Ganev, P. and Aleksiev, Y. (2018). *Skills Mismatches - An Impediment to the Competitiveness of EU Businesses*. EESC.
- O'Reilly, J., Eichhorst, W., Gábos, A., Hadjivassiliou, K., Lain, D., Leschke, J., McGuinness, S., Kureková, L.M., Nazio, T., Ortlieb, R., Russell, H., and Villa, P. (2015). *Five Characteristics of Youth Unemployment in Europe: Flexibility, Education, Migration, Family Legacies, and EU Policy*. SAGE Open 5(1): 2158244015574962.
- OECD (2015). *PISA 2015 key findings for Hungary*. As of 22 July 2019: <https://www.oecd.org/hungary/pisa-2015-hungary.htm>
- OECD (2018), *Education Policy Outlook: Spain*, As of 29 July 2019: <https://www.oecd.org/education/Education-Policy-Outlook-Country-Profile-Spain-2018.pdf>
- OECD (2018). *A Broken Social Elevator? How to promote Social Mobility*. As of 21st August 2019: <http://www.oecd.org/social/broken-elevator-how-to-promote-social-mobility-9789264301085-en.htm>.
- OECD (2018). *The Resilience of Students with an Immigrant Background: Factors That Shape Well-Being*. OECD Reviews of Migrant Education. As of 21 August 2019: <https://www.oecd.org/education/the-resilience-of-students-with-an-immigrant-background-9789264292093-en.htm>.
- OECD Education GPS (2018). *Hungary: Overview of the Education System*. As of 22 July 2019: <http://gpseducation.oecd.org/CountryProfile?primaryCountry=HUN&treshold=10&topic=EO>
- OECD Education GPS (2018). *United Kingdom: Overview of the Education System*. As of 22 July 2019: <http://gpseducation.oecd.org/CountryProfile?plotter=h5&primaryCountry=GBR&treshold=10&opic=EO>

- OECD, (2018), *Education at a glance 2018*, As of 26 July 2019: <http://gpseducation.oecd.org/Content/EAGCountryNotes/EST.pdf>
- OECD, (n.d.), *Estonia: Overview of the education system (EAG 2018)*, As of 26 July 2019: <http://gpseducation.oecd.org/CountryProfile?primaryCountry=EST&treshold=10&topic=EO>
- Oliver, C., Jayaweera, H., (2013), *The Impacts of Restrictions and Entitlements on the Integration of Family Migrants*. National Report UK. As of 23 August 2019: https://www.compas.ox.ac.uk/wp-content/uploads/PR-2013-IMPACIM_UK.pdf
- Orosz, K. (2018). *Interconnected Dimensions of University Autonomy in Europe*. In A. Curaj, L. Deca, R. Pricopie (eds.) 'European Higher Education Area: The Impact of Past and Future Policies'. Cham: Springer International Publishing.
- Paananen, M., Kumpulainen, K. and Lipponen, L. (2015). *Quality drift within a narrative of investment in early childhood education*. European Early Childhood Education Research Journal 23(5): 690-705.
- Papadopoulos, O. (2016). *Economic crisis and youth unemployment: Comparing Greece and Ireland*. European Journal of Industrial Relations 22(4): 409-426.
- Pontes, A., Henn, M. and Griffiths M. D. (2017). *Towards a conceptualization of Young People's Political Engagement: A Qualitative Focus Group Study*. Societies 8(17): 1-17.
- Quintini, G., & Martin, S. (2006). *Starting well or losing their way? The position of youth in the labour market in OECD countries*. OECD Social, Employment and Migration Working Papers 39.
- Raudenbush, S. (2017). *Does schooling increase or decrease social inequality?*. Focus. (33)2: 27-28.
- Refrigeri, L. and Aleandri, G. (2013). *Educational policies and youth unemployment*. 3rd World Conference on Learning, Teaching and Educational Leadership. H. F. Odabasi. Amsterdam, Elsevier Science Bv. 93: 1263-1268.
- Reiska, P., (n.d.), *Estonian success in PISA – what are the reasons behind that?*, As of 26 July 2019: https://www.hm.ee/sites/default/files/henno_presentation_final_pisa_191114.pdf
- Republic of Estonia, Ministry of Education and Research, (2014), *The Estonian Lifelong Learning Strategy 2020*, https://www.hm.ee/sites/default/files/estonian_lifelong_strategy.pdf
- Republic of Estonia, Ministry of Education and Research, (n.d.), *Digital focus*. As of 26 July 2019: <https://www.hm.ee/en/activities/digital-focus>
- Reymen, D., Gerard, M., de Beer, P., Meierkord, A., Paskov, M., Di Stasio, V., Donlevy, V., Atkinson, I., Majulec, A., Famira-Muehlberger, U. and Lutz, H. (2015). *Labour Market Shortages in the European Union*. Study for the EMPL Committee. As of 21st August: http://www.europarl.europa.eu/RegData/etudes/STUD/2015/542202/IPOL_STU%282015%29542202_EN.pdf.
- Rutkowski, D., Rutkowski, L. and Engel, L. C. (2014). *Inclusive schooling: fostering citizenship among immigrant students in Europe*. Intercultural Education 25(4): 269-282.
- Ryan A. (2016). *Academic Freedom and the 'Truth Function'*. In C. Hudson & J. Williams (eds.) 'Why academic Freedom Matters, a response to current challenges'. London: Civitas. 49-64.
- Santiago, P. et al., (2016), *OECD Reviews of School Resources: Estonia 2016, OECD Reviews of School Resources*, OECD Publishing, Paris. As of 26 July 2019: <https://www.oecd-ilibrary.org/docserver/9789264251731-5-en.pdf?expires=1564145772&id=id&accname=ocid56013842&checksum=6FC71DEF3DE29F5094C7A3B252F412BB> pg.67
- Scientists for Future (2019). *Stellungnahme*. As of 21 August 2019: <https://www.scientists4future.org/stellungnahme/>.

- Serrano-Velarde, K. (2014). *Rising Above Institutional Constraints? The Quest of German Accreditation Agencies for Autonomy and Professional Legitimacy*. *Minerva* 52(1): 97-118.
- Sloam, J. (2014). *'The outraged young': young Europeans, civic engagement and the new media in a time of crisis*. *Information, Communication & Society* 17(2): 217-231.
- Smyth, E., and McCoy, S. (2009). *Investing in education: Combating educational disadvantage*. ESRI.
- Smyth, F., Shevlin, M., Buchner, T., Biewer, G., Flynn, P., Latimier, C., Siska, J., Toboso-Martin, M., Rodriguez Diaz, S. and Ferriera, M. A. V. (2014). *Inclusive education in progress: policy evolution in four European countries*. *European Journal of Special Needs Education* 29(4): 433-445.
- Sotomayor-Morales, E., Grande-Gascón, M. L. and Ajaouani, N. (2017). *The Social Inclusion of the Immigrant Population in Europe through the Development of New Teaching and Learning Methods in Vocational Training*. *Procedia - Social and Behavioral Sciences* 237: 535-540.
- Stewart, K. and Janta, B. (2018). *Tackling Child Poverty and Social Exclusion in Europe. How Funding Mechanisms Can Help*. Luxembourg: Publications Office of the European Union.
- Study in Estonia, (n.d.), *Tuition fees*, <http://www.studyinestonia.ee/en/tuition-fees> Accessed 26 July 2019
- The Council of the European Union (2018). *The Role of Youth Work in the Context of Migration and Refugee Matters*. As of 21 August 2019: <http://data.consilium.europa.eu/doc/document/ST-14082-2018-INIT/en/pdf>.
- Thompson, R. (2011). *Individualisation and social exclusion: the case of young people not in education, employment or training*. *Oxford Review of Education* 37(6): 785-802.
- Times Higher Education, (2017), *23% of scholars 'bullied for views'*. Issue 2307, p7. As of 23 August 2019: <https://www.timeshighereducation.com/news/quarter-of-uk-academics-bullied-over-scholarly-views>
- Times Higher Education. (2017). *University autonomy in Europe "hit by austerity"*. *Times Higher Education* (2300): 6-7. As of 23 August 2019: <https://www.timeshighereducation.com/news/university-autonomy-in-europe-hit-by-austerity#survey-answer>
- Times Higher Education. (2018). *Hungarian academics fear EU funding cuts over loss of autonomy*. As of 23 August 2018: <https://www.timeshighereducation.com/news/hungarian-academics-fear-eu-funding-cuts-over-loss-autonomy>
- Tomic, C. H. and Taylor, K. (2018). *Youth unemployment, the brain drain and education policy in Croatia: A call for joining forces and for new visions*. *Policy Futures in Education* 16(4): 501-514.
- UK Department for Education (2016). *DfE Strategy 2015-2020*. As of 22 July 2019: <https://www.gov.uk/government/publications/dfe-strategy-2015-to-2020-world-class-education-and-care>;
- UK Department for Education (2016). *DfE Strategy 2015-2020'*. As of 22 July 2019: <https://www.gov.uk/government/publications/dfe-strategy-2015-to-2020-world-class-education-and-care>
- UK Government. (n.d.) *Student Finance*. Retrieved on 23 July 2019: <https://www.gov.uk/student-finance>
- UNESCO (n.d.). *International Standard Classification of Education*. As of 21 August 2019: <http://uis.unesco.org/en/topic/international-standard-classification-education-iscd>.
- Van Belle, J. (2016). *Early Childhood Education and Care (ECEC) and its long-term effects on educational and labour market outcomes*. RAND Europe.

- Vrielin J., Lemmens, P., Parmentier S. and LERU Working Group on Human Rights (2011). *Academic Freedom as a Fundamental Right*. *Procedia Social and Behavioural Science* .12:117-141.
- Welsh Government (2017). *Education in Wales: Our national mission*. As of 22 July 2019: <https://gov.wales/sites/default/files/publications/2018-03/education-in-wales-our-national-mission.pdf>
- Woods T. M., Acosta, W., Chung, E., Cox, A., Cargica, G., Klucken, J. and Chisholm-Burns, M. (2016) *Academic Freedom Should Be Redefined: Point and Counterpoint*. *American Journal of Pharmaceutical Education*, 80(9): 146.
- Zani, B. & Barrett, M., (2012)., *Engaged Citizens? Political Participation and social engagement among youth, women, minorities, and migrants*. *Human Affairs*, 22, 273-282.

ANNEX

ANNEX A. LITERATURE REVIEW METHODOLOGY AND DOCUMENTS REVIEWED

A.1. Methodology

The research team reviewed the main policy documents reflecting the most relevant policy developments with regards to education and youth in the EU in the last 5–10 years. This includes the policy documents establishing the main strategic frameworks (e.g. ET2020 and the EU Youth Strategy) and related funding programmes (e.g. Erasmus+), as well as other relevant policy documents at EU level (a comprehensive list of documents reviewed is presented in at the end of this Annex).

From this review, the research team identified a list of policy issues that were considered most relevant to the current situation – as well as future developments – in EU education and youth policies. These issues guided the systematic document search to support the literature review, which is described above. This was complemented by an additional targeted search for each issue, which was informed by the previously identified policy and grey-literature documents, as well as academic articles identified through expert knowledge. A full list of included policy documents is presented below.

The search was subject to the following limitations:

Applied criteria:

- Geographical scope: Focus on EU countries.
- Temporal scope: Only sources published since 2009 were considered. A shorter timeframe (publications since 2015) was applied for the issue of migration due to the temporal onset of the migration crisis in that year.
- Language: only English sources were included.

The literature review was further supported by a systematic search conducted by an education-specialist librarian. In consultation with the librarian, a search strategy was developed to refine the identified policy issues and formulate a particular search strategy for each policy issue. The search strategy was adjusted depending on the policy issue, as well as to account for general search terms to be included for all searches (see Table 8 below). The education specialist helped select the most relevant databases for education and youth topics. The following databases were searched: Education Resources Information Center (ERIC), Education Abstracts, and Web of Science. ERIC and Education Abstracts were searched simultaneously due to their location on the same platform. This systematic search was subject to the same limitations in terms of time frame, language, etc. as the literature review, as outlined above.

The results from the database searches were collated, with a detailed list of search terms and results per issue and database presented in Table 8. This resulted in 1,786 titles that were subsequently imported into the bibliographic library tool EndNote, separated by policy issue. The research team identified and removed 314 duplicates across all policy issues and databases, resulting in 1,472 potential documents for review.

Table 8. Search terms and results from systematic literature search

EN Issue Group Names	ERIC/Education Abstracts	Web of Science	TOTAL	Issues - Search Strategies
Academic Freedom	32	23	55	("academic freedom" OR "university autonomy") AND ("European Union" OR Europe)
Environmental Education	319	182	501	"Environmental education" OR sustain*
Media Literacy	320	106	426	"media literacy"-OR "digital society" or citizenship
Migration	185	74	259	Migrat* OR immigrat* (2015-present)
Skill Gap	13	5	18	"skill gap" OR "skills gap" or "skill mismatch" or "skills mismatch"
Social inclusion	325	142	467	"Social Inclusion" OR "Social Mobility" OR inclusion OR "social stratification"
Youth Employment	43	17	60	"youth employment" OR "youth unemployment"

The research team frequently searched the endnote file containing these sources to find further evidence for the specific issues, and particular areas of concern with these issues (for example researching the area of “brain drain” within the issue of youth unemployment). This greatly strengthened the hand-search and sped up the process because the team was able to search the 1,472 sources that had previously been identified as relevant, rather than having to enter new search terms into databases and sifting through new results.

A.2. List of documents reviewed

- EPRS (2018). *Erasmus 2021–2027 The Union programme for education, training, youth and sport* [briefing], EU Legislation in Progress 2021–2027. As of 2 June 2019: [https://www.europarl.europa.eu/RegData/etudes/BRIE/2018/628313/EPRS_BRI\(2018\)628313_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2018/628313/EPRS_BRI(2018)628313_EN.pdf)
- European Commission (2010). *EUROPE 2020 A strategy for smart, sustainable and inclusive growth*. COM/2010/2020 final, As of 2 June 2019: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52010DC2020>
- European Commission (2013). *Entrepreneurship 2020 Action Plan, Reigniting the entrepreneurial spirit in Europe*. COM(2012) 795 final. As of 2 June 2019: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0795:FIN:en:PDF>
- European Commission (2014), *Summary document: Horizon 2020: the EU's research and innovation programme (2014–20)*. As of 2 June 2019: <https://eur-lex.europa.eu/legal-content/EN/LSU/?uri=CELEX:32013R1291>
- European Commission (2016). *Education and Training Monitor 2016*. As of 11 March 2019: http://www.cnedu.pt/content/noticias/internacional/monitor2016-summary_en.pdf
- European Commission (2016). *Evaluation of the EU Youth Strategy and the Council Recommendation on the mobility of young volunteers across the EU*. As of 11 March 2019: https://ec.europa.eu/youth/sites/youth/files/youth-strategy-mobility-evaluation-2016_en.pdf
- European Commission (2016). *The Youth Guarantee and Youth Employment Initiative three years on*. COM/2016/0646 final. As of 3 June 2019: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52016DC0646>
- European Commission (2017), *Strengthening European Identity through Education and Culture: The European Commission's contribution to the Leaders' meeting in Gothenburg, 17 November 2017*. COM(2017) 673 final. As of 2 June 2019: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52017DC0673>
- European Commission (2018). *Education and Training Monitor 2018*. As of 11 March 2019: <https://ec.europa.eu/education/sites/education/files/document-library-docs/volume-1-2018-education-and-training-monitor-country-analysis.pdf>

- European Commission (2018). *Empowering young people and building their resilience: A new EU Youth Strategy*. Factsheet. As of 11 of March 2019: <https://ec.europa.eu/youth/sites/youth/files/factsheet-youth-may2018-en.pdf>
- European Commission (2018). *EU Budget for the Future: European Solidarity Corps beyond 2020*. As of 2 June 2019: https://ec.europa.eu/commission/sites/beta-political/files/budget-may2018-solidarity-corps-beyond-2020_en.pdf
- European Commission (2018). *Ex ante evaluation accompanying the document Proposal for a Regulation of the European parliament and of the Council establishing the European Solidarity Corps programme*.
- European Commission (2018). *Future of Learning Package*. As of 11 March 2019: https://ec.europa.eu/commission/news/future-learning-package-2018-jan-17_en
- European Commission (2018). *Mid-term evaluation of the Erasmus+ programme (2014–2020)*.
- European Commission (n.d.). *Entrepreneurship education*. As of 11 March 2019: https://ec.europa.eu/growth/smes/promoting-entrepreneurship/support/education_en
- European Commission (n.d.). *Towards a European Education Area*. As of 11 March 2019: https://ec.europa.eu/education/education-in-the-eu/european-education-area_en
- European Commission (n.d.). *Projects and studies on entrepreneurship education*. As of 11 March 2019: https://ec.europa.eu/growth/smes/promoting-entrepreneurship/support/education/projects-studies_en
- European Commission (n.d.). *The Entrepreneurship 2020 Action Plan*. As of 11 March 2019: https://ec.europa.eu/growth/smes/promoting-entrepreneurship/action-plan_en
- European Commission Directorate General for Education and Culture (2014). *Erasmus+ Inclusion and Diversity Strategy – in the field of Youth*. As of 2 June 2019: http://ec.europa.eu/assets/eac/youth/library/reports/inclusion-diversity-strategy_en.pdf
- European Parliament (2010). *An EU Strategy for Youth European Parliament resolution of 18 May 2010 on 'An EU Strategy for Youth – Investing and Empowering'*. 2011/C 161 E/04. As of 2 June 2019: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1562349164333&uri=CELEX:52010IP0166>
- European Parliament (2017). *Erasmus 2021–2027. The Union programme for education, training, youth and sport*. Briefing.
- European Parliament (2018). *Ensuring high-quality job creation from EU funding programmes: How can the best practice of Horizon 2020 be better integrated into other programmes (ESF, Youth Guarantee, Globalisation Fund)?* As of 2 June 2019: [https://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU\(2018\)603832](https://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU(2018)603832)
- European Union (2008). *Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning*. (2008/C 111/01). As of June 2019: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32008H0506%2801%29>
- European Union (2009). *Council conclusions of 12 May 2009 on a strategic framework for European cooperation in education and training (ET2020)*. 2009/C 119/02. As of 2 June 2019: [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52009XG0528\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52009XG0528(01))
- European Union. (2012). *Charter of Fundamental Rights of the European Union*. 2012/C 326/02, As of 1 March 2019: <https://www.refworld.org/docid/3ae6b3b70.html>

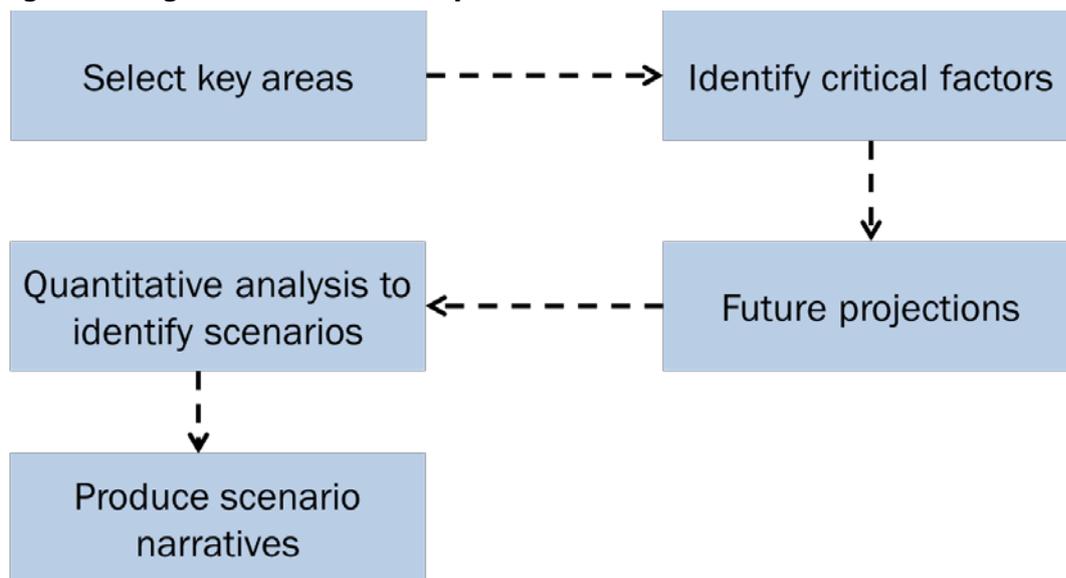
- European Union (2017). *Council recommendation of 22 May 2017 on the European Qualifications Framework for lifelong learning and repealing the recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning*. (2017/C 189/03). As of 2 June 2019:
<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017H0615%2801%29>
- European Union (2018). *Resolution of the Council of the European Union and the Representatives of the Governments of the Member States meeting within the Council on a framework for European cooperation in the youth field: The European Union Youth Strategy 2019–2027*. (2018/C 456/01). As of June 2 2019: [https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1562349688395&uri=CELEX:42018Y1218\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1562349688395&uri=CELEX:42018Y1218(01))
- European Union (2019). *Resolution of the Council and of the representatives of the Member States meeting within the Council establishing guidelines on the governance of the EU Youth Dialogue — European Union Youth Strategy 2019–2027*. (2019/C 189/01). As of 2 June 2019:
[https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:42019Y0605\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:42019Y0605(01))

ANNEX B. SCENARIO METHODOLOGY

B.1. Overview

To develop the scenarios we used the framework presented in Gausemeier et al. (1998), which identifies key areas and critical factors and combines cross-impact analysis, consistency analysis and cluster analysis to identify scenarios. This approach is operationalised in five steps (shown in Figure), with each step subsequently described in more detail. The ScMI software suite was used to support the scenario development (Scenario Management International AG n.d.).

Figure 5. Stages of scenario development



B.2. Determining key areas and critical factors

A number of key areas were identified by members of the project team, who possessed education, economic and scenarios expertise. Key areas are those that could both influence developments in education and also be influenced by such developments. They were broadly categorised as demographic, work/economic, social, technological, political and environmental, and education related. Each area can be characterised by factors, for example GDP would be classed as an economic factor, and the capacity of educational institutions, an education factor. The literature review described in Annex A was used to inform the selection of factors that could be important for the future of education, both in terms of the specific factors related to education and youth employment, but also factors from other key areas that were linked to these. Additional factors were also developed based on wider expertise in the education sector and from previous scenario studies of socio-economic, demographic, environmental and technological developments. An initial longlist of 28 factors was compiled.

Critical factors are defined as those factors that are interlinked, important and uncertain. To identify the critical factors for the scenarios, a cross impact-analysis was undertaken on the longlist. This analysis was designed to:

- help us understand potential links between factors (how **interlinked** they are), an important part of the scenario development process;
- identify which were the most **important** factors. Here we focused on those that had the most influence on other factors in the system (called “active” factors), and those that are most influenced by other factors (called “passive” factors).

The cross-impact analysis process is illustrated in Box 3 below.

Box 3. Cross-impact analysis

In a cross-impact analysis, subject experts are asked to qualitatively score the relationship between pairs of factors. The scoring scale is:

- 0 = no impact
- 1 = weak and delayed impact
- 2 = medium impact
- 3 = strong and direct impact

We focus on direct relationships between factors. Every combination of factors is given a score based on the degree to which one factor influences one another, i.e. the degree to which factor X (row) influences factor Y (column). In the extract below *labour mobility* is deemed to have no influence on *total population*. The influence of *total population* on *labour mobility* is scored separately (not shown).

Activate the matrix field you want to start clicking on the "Start" button.

Start

	Education Population	Total Population	Economic migration	Urbanisation	Spending in education	Unemployment (including part-time work, underemployment)	Income inequality	Cost of living	Commuting distances	Labour mobility	Devices and broadband	Attitudes towards environment
Education Population	0	1	1	3	2	1	1	2	3	2	1	
Total Population	3		1	1	2	1	1	1	1	2	1	1
Economic migration	3	3		2	1	1	2	1	0	2	0	1
Urbanisation	2	0	1		1	1	1	2	3	2	3	1
Spending in education (public spending)	2	1	2	1		2	3	3	2	1	3	1
Unemployment (including part-time work, underemployment)	2	1	2	2	2		3	3	2	3	1	2
Income inequality	2	1	2	3	2	1		2	3	2	3	2
Cost of living	2	1	2	1	2	1	2		2	3	1	2
Commuting distances to school	1	1	0	3	2	2	0	2		2	2	1
Labour mobility	1	0	1	2	2	3	3	2	2		1	1

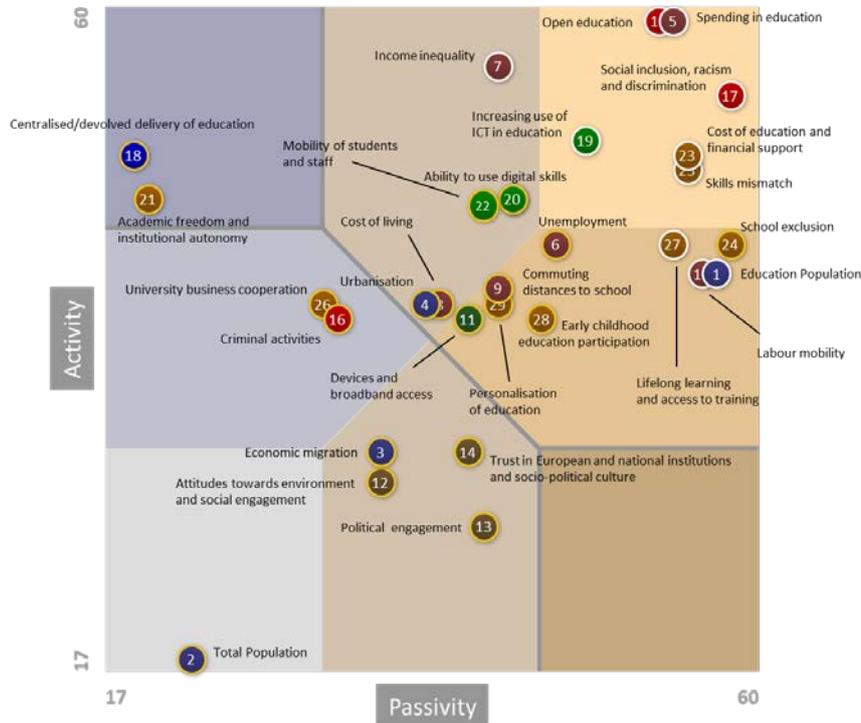
In this study, four team members filled in the cross-impact matrix together. It was independently reviewed by our education experts. Where we had differences of scores of 2 or more, these were discussed, and revised scores were agreed.

The cross-impact analysis is used to reduce the number of factors to a manageable number, both in terms of functionality of the software and to make sure distinct scenarios can be developed, while maintaining sufficient detail.

Figure shows the scoring of the different factors after the cross-impact analysis, from which the most active and passive factors to be used in the development of scenarios were identified. A large number of factors in the top-right quadrant reflects the highly interconnected nature of the system. The process is iterative and the cross-impact analysis showed that some factors could be combined into a single

factor.²⁹⁸ In addition to activity and passivity, the **uncertainty** of the factors is also an important criterion for the scenarios. Hence, a final set of 19 critical factors were selected, based on their influence scores and uncertainty.²⁹⁹

Figure 6. Activity-passivity grid based on cross-impact scoring



Jun-19

1

B.3. Future projections

Future projections were produced for each of the 19 factors. These projections are qualitative and are designed to represent divergent future outcomes so that the resulting scenarios capture the full spectrum of possibilities. Starting from evidence on current trends for the factors, the qualitative projections effectively indicate directions of travel away from the current path. They were developed based on desk research and discussion with experts internal to the team. It is important for the plausibility of the scenarios that the factor projections in any given scenario, while qualitative, are consistent with each other. This internal consistency check is undertaken in the next step (see below). Some projections were removed from the analysis as part of this process. The final set of projections for each factor is presented in **Table 9**.

²⁹⁸ In fact, some factors were combined during the consistency analysis as they were found to be highly correlated. 17 critical factors were used in the final scenario development.

²⁹⁹ The software limits the number of factors to 20. This limit is also sensible because having too many factors makes the consistency analysis and the development of distinct scenario narratives intractable.

Table 9. Definition of factors affecting the future development of education and youth in the EU

Factor	Description	Projections
Education Population	<p>Education population as a share of the total population (%) – What we are interested to capture with this factor is what share of the entire population is enrolled in education – covering all levels. The share of the education population would drop if the population grows but ages and less people enrol in education. However, if more and more people enrol in education (e.g. life-long learning programmes), the education population could still grow, even if the total population does not.</p> <p><u>Not covered by this factor:</u> distinction by age, gender, socio-economic situation, etc. The population is taken here as a share.</p>	<p>Increase in the education population</p> <p>Continuation of current trends</p> <p>Decrease in education population</p>
Financing of education	<p>Expenditure in education (combining public and private) as a share of GDP – This factor describes how much money is being spent on education and could be influenced by political and economic considerations.</p> <p><u>Not covered by this factor:</u> the relative share of public and private funding – This dimension would be captured in the business model factor.</p>	<p>Increased total (public+ private) funding</p> <p>Same level of total funding as now</p> <p>Decreased total (public+ private) funding</p>
Immigration from outside the EU	<p>This factor covers net migration from outside the EU to inside the EU, including both skilled migration and economic migration. While both types of migration are different, we assume that their respective relation with the education system does not justify them being treated as separate factors.</p> <p><u>Not covered by this factor:</u> intra-EU labour mobility (covered elsewhere).</p>	<p>Increased migration from outside the EU</p> <p>Decreased migration from outside the EU</p>
Unemployment	<p>The share of the total EU population that is of working age and is not employed. This factor includes youth unemployment, which is not covered separately in any other factor.</p>	<p>Unemployment increases</p> <p>Unemployment remains stable at current levels</p> <p>Unemployment decreases</p>
Intra-EU labour mobility	<p>This factor covers intra-EU labour mobility – workers working in another EU Member States than the one where they have their usual citizenship.</p>	<p>Labour mobility increases</p> <p>Labour mobility decreases</p>

<p>Political climate</p>	<p>We decided to focus this factor on the EU political environment rather than the national/regional one, specifically on trust in public institutions.</p> <p><u>Not covered by this factor:</u> regionalism</p>	<p>Greater trust in the EU</p> <p>Less trust in the EU</p> <p>Absolute breakdown of trust in the EU</p>
<p>Business model of education</p>	<p>This factor looks at whether the education systems overall are more oriented towards a service culture (which would go together with education for all, mainly publicly funded) or a market culture (selective education, with a stronger involvement of the private sector). We assume the current culture is balanced.</p>	<p>More of a service culture (more public funding)</p> <p>Culture remains similar to as now</p> <p>More of a market culture (more private funding)</p>
<p>Illegal activities</p>	<p>This factor covers the level of criminal activities in the EU – For this factor we focus on youth crime.</p>	<p>Reduction in levels of offending, radicalisation and punishment</p> <p>Continuation in levels of offending, radicalisation and punishment</p> <p>Increase in levels of offending, radicalisation and punishment</p>
<p>Social inclusion</p>	<p>For this factor we look at whether inequalities (socio-economic, but also in terms of including disadvantaged people in society) increase or decrease. This factor focuses on inclusion in society rather than in the education system in particular (this dimension will be covered under “educational inclusion”).</p>	<p>More inequalities</p> <p>Current levels of inequalities</p> <p>Fewer inequalities</p>
<p>Structure and principles of the EU education systems</p>	<p>For this factor we focus on structures and systems at EU level and the extent to which the cooperation in place (mainly Open Method of Coordination) increases or decreases.</p> <p><u>Not covered under this factor:</u> autonomy of education and training institutions with regard to central (national or regional) authorities in the Member States.</p>	<p>Enhanced cooperation</p> <p>Continued cooperation</p> <p>Reduced cooperation</p>
<p>Educational inclusion</p>	<p>For this factor we focus on whether those who participate in education successfully complete education with a diploma. This factor will not cover education participation – which is covered elsewhere (education population) – nor social inclusion.</p>	<p>High attainment</p> <p>Low attainment</p>

<p>Skills mismatch</p>	<p>This factor covers the extent to which the skills of the people who leave education are in line with the skills that employers need. The assumption is that the current situation is relatively matched (even if it varies greatly across countries, levels and sectors).</p> <p>The extent to which employers actually hire and educated graduates find a job is covered under “employment”.</p>	<p>Better match of educational outcomes with skills required by labour market</p> <p>Worse match of educational outcomes with skills required by labour market</p> <p>Better match of educational outcomes with skills required by labour market in some specific sectors, but not all</p>
<p>Personalisation</p>	<p>This factor explores whether learning will become more personalised, with a shift of the “burden” and responsibility from the teacher, to the learner, the teacher becoming more of a facilitator in the learning process. Personalisation is already happening but limited to certain contexts (for some categories of learners). This factor will explore the extent to which personalisation will expand for all.</p> <p>While personalisation is often coupled with the use of ICT in education, we considered these two dimensions separately, bearing in mind that ICT can be used in education for other purposes (e.g. reaching more people at once) and that personalisation could happen (even if very unlikely) without ICT.</p>	<p>More personalised learning for all</p> <p>Continuation of same education for all with limited degree of personalisation</p> <p>Less personalisation than as now</p>
<p>Education institution capacity</p>	<p>With this factor we cover the extent to which the education systems have the capacity to absorb the demand for education. We assume that the situation as it is now is a relative match (except in some sectors like early childhood education and care).</p>	<p>Over offer (more seats than students)</p> <p>Over demand (more students than spots)</p> <p>Matched</p>
<p>Real GDP growth</p>	<p>This factor reflects the wealth of an economy. It does not reflect the inequalities, which are covered in another factor.</p>	<p>Medium-high real GDP growth</p> <p>Low real GDP growth</p> <p>Recession</p>
<p>Underlying technology trends</p>	<p>This factor combines: Automation and the use of AI in the workplace, which could displace human</p>	<p>Strong rollout of all technologies across EU</p>

	<p>labour and create new forms of employment that require upskilling of the workforce.</p> <p>The extent to which ICT infrastructure (e.g. broadband and devices) is available both for educational purposes, in the workplace and to society at large.</p>	<p>Increasing use of automation/AI with regional variation</p> <p>ICT growth but limited automation/AI</p>
Democratic participation and civil engagement	<p>This factor covers people's participation in democratic life, through elections or other/alternative ways, such as participation in public debate. This also includes participation in political debate online, using social media.</p>	<p>High participation</p> <p>Low participation</p>

B.4 Quantitative analysis

The quantitative analysis used to identify the scenarios consists of two parts, which take place after the factors and projections have been identified.

Firstly **consistency analysis** is undertaken to ensure the consistency of projections between the different factors. This information forms the basis for identifying consistent collections of factor projections, which become the key building blocks for development of the future scenarios. At this stage projections can be refined and factors that are found to be highly correlated can be combined.

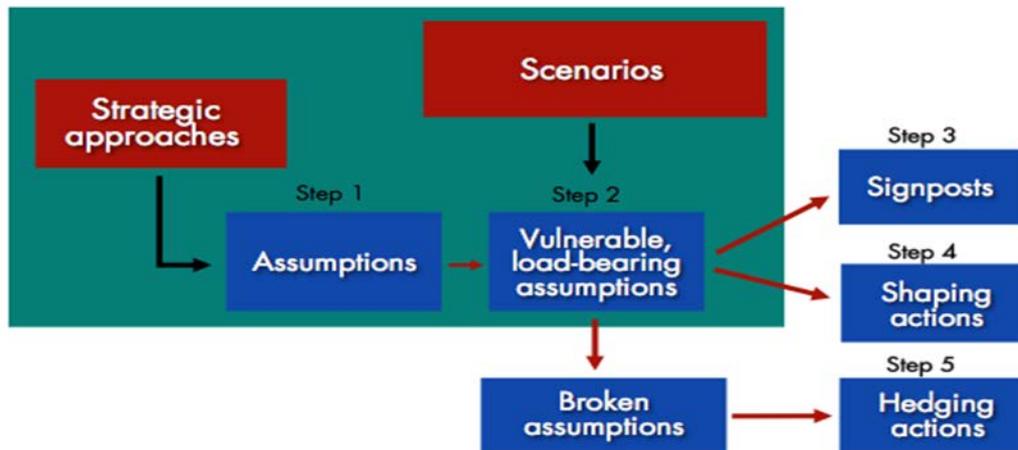
B.5 Scenario narratives

An important part of the scenario process is to build a narrative around the projections for each scenario. The narrative is told from the perspective of the future – in this case 2035 – building on the factor projections and, in a sense, bringing them to life to provide a description of the education system situated in the context of broader societal developments. Where necessary, the narrative provides an indicative pathway as to how the 2035 future has been reached, and is designed to provide sufficient information for policy testing without being prescriptive.

ANNEX C. SCENARIO METHODOLOGY

The methodology used to test the robustness of European-level policy options is based on the Assumption Based Planning (ABP) approach, and was carried out in a workshop setting with experts. ABP facilitates discussion of alternative means for reaching envisioned outcomes. It focuses on exposing implicit assumptions connected to a desired strategic goal.

Figure 7. ABP helps groups find hidden assumptions and weigh risks



ABP begins with examining strategic approaches or policy options in detail to identify their underlying assumptions, which may be explicit (directly stated) or implicit (unstated). Assumptions are then categorised based on whether they are vulnerable (that is, they may fail within the time horizon) and load-bearing (whether their failure would cause the strategy to fail), sometimes also called key assumptions. These are the important assumptions to watch over time for early signals of potential failure (“signposts” in the diagram above). APB then identifies two types of responses to the potential failure of vulnerable and load-bearing assumptions. First, “hedging actions” help insure against negative consequences when assumptions fail. Second, “shaping actions” help shape the future in a desirable way. In this way, ABP provides a framework to identify the assumptions that are at risk and how to respond to them effectively.

A principal value of ABP is that it is a useful means to both support discussion of overall goals and coordinate that discussion with the policy-design process.

In the workshop, experts were first asked to consider the policy options and characterise them using the following questions as a guide:

- What are the potential policy options?
- Can they be grouped by strategic types (e.g. education infrastructure, behavioural change, technological innovation)?
- What are the key trade-offs?
- What are the key assumptions underlying the policies?
- Who are the key actors?
- What unintended consequences could result?

For each scenario, policy options are then assessed using the following criteria:

- For which policy options do key assumptions not hold?
- How “successful” is the policy option?
- Could actions be taken to improve the outcome for this policy option?

The different policy options can then be compared across the scenarios, and policy implications are drawn out.

ANNEX D. CASE STUDIES

5.1 Case study: Estonia in a cold-feet Europe in 2035

In Estonia, public education is free at primary and secondary school levels, while tuition fees vary for tertiary education, depending on the institution and the subject area.³⁰⁰ Fulfilling the compulsory basic education generally takes nine years.³⁰¹

The Estonian education system is characterised by strong decentralisation. Decisions are primarily taken by regional or sub-regional authorities for public lower secondary education.³⁰² Schools may use their discretion to adjust national curricula and choose some of the subjects taught.³⁰³ Estonia's recent success in the OECD PISA study has been considered to result from wider educational reform that has been based on developing national curricula, vocational education and teacher training.³⁰⁴ Nevertheless, Russian-language schools continue to achieve significantly lower results in international student assessments.³⁰⁵

The country seeks to emphasise the teaching of digital competences, defined as "readiness to use digital technology to cope in a rapidly changing knowledge-based society."³⁰⁶ The Estonian Lifelong Learning Strategy 2020 maintains that 80 per cent of the population should possess computer skills by 2020, and that digital technology and learning resources should be integrated into all levels of education.³⁰⁷ The Strategy also highlights the need to "improve the level of Estonian language learning in Russian-language schools." The share of students in these schools who speak Estonian at a level B1 or higher was 56.5 per cent in 2012, the country's aim in the Lifelong Learning Strategy 2020 was to reach 90 per cent by 2020.³⁰⁸

2019

Cold-feet Europe

Digitalisation has had a radical effect on the labour market – with less workforce needed. While people are ready to take on the jobs of today, there is not enough demand for a skilled workforce. While digitalisation was supposed to support growth, the economic situation is not as good as expected, and society is concerned about what the future will bring.

2035

³⁰⁰ Study in Estonia, (n.d.), *Tuition fees*, As of 26 July 2019: <http://www.studyinestonia.ee/en/tuition-fees>

³⁰¹ Ministry of Education and Research (n.d.), *Pre-school, basic and secondary education*, As of 26 July 2019: [Republic of Estonia \(n.d.\), Pre-school, basic and secondary education, https://www.hm.ee/en/activities/pre-school-basic-and-secondary-education](https://www.hm.ee/en/activities/pre-school-basic-and-secondary-education)

³⁰² Reiska, P., (n.d.), *Estonian success in PISA – what are the reasons behind that?*, As of 26 July 2019: https://www.hm.ee/sites/default/files/henno_presentation_final_pisa_191114.pdf

³⁰³ Santiago, P. et al., (2016), *OECD Reviews of School Resources: Estonia 2016*, OECD Reviews of School Resources, OECD Publishing, pp.67 Paris. As of 26 July 2019: <https://www.oecd-ilibrary.org/docserver/9789264251731-5-en.pdf?expires=1564145772&id=id&accname=ocid56013842&checksum=6FC71DEF3DE29F5094C7A3B252F412BB>

³⁰⁴ Republic of Estonia, Ministry of Education and Research, (n.d.), *Digital focus*. As of 26 July 2019: <https://www.hm.ee/en/activities/digital-focus>

³⁰⁵ Republic of Estonia, Ministry of Education and Research, (2014), *The Estonian Lifelong Learning Strategy 2020*, As of 26 July 2019: https://www.hm.ee/sites/default/files/estonian_lifelong_strategy.pdf

³⁰⁶ Ibid.

³⁰⁷ Ibid.

³⁰⁸ Ibid.

Having started preparing for the future by embracing the application of digital innovation in education in the late 2010s, Estonia now seems better placed than many Member States. Its economy, strongly focused on the digital and financial sectors, has continued to do slightly better than the average with relatively low unemployment. Despite this, efforts have proven insufficient in ensuring the development of a knowledge economy supporting jobs for all Estonians.

Unemployment figures mask a continuing outflow of workers in search of employment in other Member States. There is increased labour market competition between EU Member States, which has lessened the sense of solidarity between countries. Consequently, while Estonian technology graduates are well placed to pick up highly paid jobs across the EU, there have been fewer opportunities for those with less sought after skills. Hence, during recent years, there has been a gradual rise in unemployment levels at home.

Nevertheless, education policy is considered a key instrument for improving the country's socio-economic performance. Spending has increased, but, as economic growth has remained moderate, there continue to be pressures to curtail and control public investment in education. The decentralised structure of the education system, along with the development of national curricula, teacher training initiatives and vocational education have meant that education is better matched to the labour market. On the other hand, this had continued the disparity between regions in relation to language.

The Estonian labour market is increasingly segmented. While some employees have access to on-the-job training and skills development initiatives and remain competitive in the labour market, those with irregular employment remain in a precarious position. There has been some progress on the implementation of strategies on life-long learning and adult education initiated in the ambitious Estonian Lifelong Learning Strategy 2020. Efforts have been made for this to be inclusive for working mothers. However, there is little political consensus over a more wholesale education and labour market policy reform, as the Estonian public reports high levels of distrust towards authorities, the public institutions and the political process.

5.2 Case study Spain: A socially fragmented Spain in 2035

Spain is a decentralised country where educational competences are shared between the General State Administration and the Autonomous Communities. Students' performance, the education expenditure and the vehicular language of instruction differ across regions. In the past 40 years of democracy, education laws and reforms were highly correlated to political changes.

Education in public schools is free from 6 to 16 years old. Besides public and private education institutions, Spain also has publicly-funded private institutions, which are partially paid by students' families' but also receive public funding.³⁰⁹ Due to the financial crisis, public expenditure in education has decreased considerably and still remains lower than the EU average. In 2017, 4.24 per cent of the GDP was spent on education and most of the spending was allocated in equal parts to primary and secondary education.³¹⁰ However, the rate of spending in 2017 is far behind the rates before the crisis (4.99 per cent in 2009). In standardized exams, such as PISA, Spain scores around the average. In 2015, Spain's performance was at the OECD average in science, reading and slightly below the OECD average in mathematics.³¹¹

The education system faces three main challenges, which have been highlighted by the European Commission: reduce early school leaving and the differences in education performance between the Autonomous Communities; increase public investment in research and innovation; and increase cooperation between education institutions and companies with a view to mitigate existing skills mismatches.³¹²

Fragmented Europe

While society and industry have embraced digitalisation, albeit at different rates across the EU, the education system has failed to prepare students for this change and workers are not able to play their role in the labour market, with disastrous consequences for the economy and society.

2019



2035

³⁰⁹ Eurydice, (2019). "Spain overview", As of 29 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/spain_en

³¹⁰ Ministerio de Educación y Formación Profesional (2019). "Estadística del Gasto Público en Educación".

³¹¹ OECD (2018), *Education Policy Outlook: Spain*, As of 29 July 2019: <https://www.oecd.org/education/Education-Policy-Outlook-Country-Profile-Spain-2018.pdf>

³¹² European Commission (2018). *Country Report Spain 2018*, As of 29 July 2019: <https://ec.europa.eu/info/sites/info/files/2018-european-semester-country-report-spain-en.pdf>

Spain experienced difficulties in adapting its education system and economy to the digital revolution. In 2035, the automation of jobs has strongly impacted multiple sectors, including agriculture, sales, transport, hospitality, manufactured industries, financial activities and real estate. The most affected are the young generation who didn't learn adequate skills at school and employees with a low level of education, who have not been able to upskill. Women are less affected since they work in areas such as education and health.

With decreasing public investment in education, the private sector is taking the lead with more private school places and increased fees at publicly funded private institutions. Moreover, the gap in student performance between the Autonomous Communities is wider and highly determined by the economic wealth of the region. Higher education has remained as traditional as it was in the 2010s. As the structure is different from most EU countries this keeps many students from participating in the Erasmus+ programme.

Despite private sector interventions, education policy has continued to turn out students with skills that are misaligned with the labour market. The percentage of workers overqualified for their job has dramatically increased, as students specialise in areas with low labour demand. The proportion of people in this situation is probably one of the highest in the EU. As a result, nowadays in Spain, having tertiary education is not synonymous with being able to get a good job.

As a consequence, unemployment, and youth unemployment in particular, have reached levels similar to the economic crisis of 2008. Although migration to the EU is still increasing, migrants, especially from South America, do not see Spain as an attractive destination anymore. Those who come tend to take on caring roles. Levels of child poverty and social inequalities are really alarming. Children who were at risk of poverty 15 years ago have been trapped in poverty their whole lives, having dropped out from school without completing secondary education and are nowadays either unemployed or working in the 'gig' economy or even the black market.

Spanish society doesn't trust its main national institutions, the political system is not stable since Spanish politics is very fragmented and the EU is increasingly under attack from all sides of the political spectrum. This growing dissatisfaction with the EU is further amplified by advice from the European Commission to the government regarding the stability and growth pact. .

5.3 Case study France: An innovative, inclusive and participative French Republic in 2035

France's long tradition of centralisation defines the organisation of the education system. While local authorities are responsible for the material operations of educational institutions, the Ministry of Education is in charge of the national curriculum applied across the country, teachers' training and funding across all levels of education³¹³.

Education in public institutions is free and, as of 2019, compulsory from three years old.³¹⁴ Tertiary education is split into two systems: public universities with an open admissions policy and low fees, and a 'non university' sector, including *Grandes Écoles*, which have a selective admissions policy and, in most cases, high tuition fees.³¹⁵

Despite multiple reforms in recent years, the French educational system is characterised by strong inequalities, both territorial and social. Additionally, students' performance in primary school has been decreasing since 2000, with lower performances in science and mathematics notably.³¹⁶ The long-held focus of national policies on secondary education is now shifting towards primary education to address this issue. In 2017, national spending on education represented 6.7 per cent of the GDP, a significant increase since the previous year due to the shift towards investing in primary education.³¹⁷ In recent years, inclusive education has become a priority in education policy, with a focus on children from disadvantaged backgrounds and children with special educational needs.^{318,319}

Aligned Europe

By 2035 technological innovation and the creation of many high-skilled jobs has led to a booming economy. Education has been at the top of the EU's spending agenda for the past fifteen years, with investment in technology-aided personalised learning creating a model of education that is more accessible to all.

2019

- ³¹³ Eurydice (2019). 'France overview', As of 18 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/france_en
- ³¹⁴ Ministère de l'Éducation Nationale et de la Jeunesse (2019). 'Pour une École de la confiance : l'instruction obligatoire à 3 ans', As of 18 July 2019: <https://www.education.gouv.fr/cid140324/pour-une-ecole-confiance-instruction-obligatoire-ans.html>
- ³¹⁵ Eurydice (2019). France overview. As of 18 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/france_en
- ³¹⁶ France Stratégie (2017). *Quelle autonomie pour les établissements scolaires?* France Stratégie: Paris. As of 18 July 2019: https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/2017-2027-actions-critiques-autonomie-etablissements_1.pdf
- ³¹⁷ Ministère de l'Éducation Nationale et de la Jeunesse (2019). *L'État de l'École 2018. 29 indicateurs sur le système éducatif français*. N.28. Ministère de l'Éducation Nationale et de la Jeunesse: Paris. As of 18 July 2019: https://cache.media.education.gouv.fr/file/etat28/13/5/depp-2018-ee_1043135.pdf
- ³¹⁸ Ministère de l'Éducation Nationale et de la Jeunesse (2018). *Ensemble pour l'école Inclusive*. Retrieved on 18 July 2019: https://cache.media.education.gouv.fr/file/07_-_Juillet/80/0/DP_Ensemble_pour_l_ecole_inclusive_complet_984800.pdf
- ³¹⁹ Gouvernement.fr (2018). 'Stratégie de prévention et de lutte contre la pauvreté'. As of 18 July 2019: <https://www.gouvernement.fr/action/strategie-de-prevention-et-de-lutte-contre-la-pauvrete>

While general education policy goals are still decided at the national level, following efforts to decentralise education started in the 1980s, the system now allows for more innovation at the local level. At the same time, EU programmes and thematic national funds, enabled by the increase of GDP share dedicated to education in a high performing economy, have supported interventions at all levels of education, targeting rural areas and regions left behind. These areas have therefore lead recent innovation in educational practices, which have contributed to reducing territorial inequalities.

In line with one of ET2030's priority areas, continued investment in early childhood and primary education has translated into better performance for all students in France. With stronger basic skills and a higher level in mathematics, students are better prepared to tackle STEM subjects in secondary and tertiary education.

Inclusion policies have remained high on the agenda. The focus on diversity and inclusion in teacher training that was emerging in the late 2010s has expanded: these are now an integral part of the teaching profession. Experiments with personalised education in some areas have proven fruitful, making personalised education the principal strategy for achieving inclusive education. Teachers are therefore better trained and able to devise adequate individual learning plans for students in cooperation with professionals from other disciplines. This inclusion in turn fosters creativity and cooperation among students and across disciplines from an early age, leading to positive outcomes, both personally and professionally.

Like other Member States with strong inequalities, targeted EU programmes for high-quality ICT solutions played a key role in enabling French schools and higher education institutions to implement widespread personalised and accessible learning.

Increased mobility has fostered solidarity among young Europeans with active civic participation supported through the most recent EU Youth Strategy. Thanks to their engagement, environment is now at the top of the agenda in Paris as much as in Brussels. New forms of accessible learning have transformed French citizens' engagement in public life. Thanks to high-quality free digital courses for all, French citizens are well informed and online public consultations held regularly ensure their voices are heard in shaping policies aimed at social and spatial inclusiveness.

5.4 Case study Hungary: An insular Hungary in 2035

Since the adoption of the Public Education Act in 2011, the Hungarian education system is highly centralised, with local authorities relinquishing responsibility for the organisation and maintenance of public education institutions (above kindergarten level) to the central government.³²⁰

Education in public institutions is both free and compulsory between the ages of 3 and 16, and access to higher education is available to all according to ability,³²¹ with the state funding approximately two thirds of all university places.³²² Despite this, only 25.5 per cent of young people are expected to achieve a bachelor's degree.³²³ More broadly, participation in upper-secondary and post-secondary vocational education is significantly below the EU average,³²⁴ and attainment in secondary education has steadily declined since 2006.³²⁵ While it is increasing in the EU overall, tertiary education attainment is also declining in Hungary.³²⁶ In light of this, the government's main policy priorities are to reduce the number of early school leavers and improve basic competences, which are reflected in the 2014-20 General Education Strategy.³²⁷

In recent years, the Hungarian government has taken steps to limit academic freedom in higher education. In 2017, the Higher Education Law was amended making it difficult for international universities to operate, and in 2018 gender studies was banned as an academic discipline.³²⁸ Due to these conditions, Central European University (CEU), one of Hungary's most prestigious independent universities, announced its decision in December 2018 to begin to relocate from Hungary to Austria.

2019 Ostrich Europe

Although education funding is seen as critical, co-operation between Member States is in decline and education and labour market issues are discussed and addressed in isolation. While the economic situation might look good in the short term, and society is not particularly concerned about the future, there are clear indications that the situation is not sustainable

³²⁰ Eurydice (2019). *Hungary Overview*. As of 22 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/hungary_en

³²¹ Nemzeti Jogszabálytar (2011). *Magyarország Alaptörvénye*. As of 22 July 2019: http://njt.hu/cgi_bin/njt_doc.cgi?docid=140968.356004

³²² Eurydice (2017). *National Student Fee and Support Systems in European Higher Education – 2017/18*. As of 22 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/national-student-fee-and-support-systems-european-higher-education-%E2%80%93-201718_en

³²³ OECD Education GPS (2018). *Hungary: Overview of the Education System*. As of 22 July 2019: <http://gpseducation.oecd.org/CountryProfile?primaryCountry=HUN&treshold=10&topic=EO>

³²⁴ Eurydice (2019). *Hungary: Ongoing Reforms and Policy Developments*. As of 22 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/ongoing-reforms-and-policy-developments-29_en

³²⁵ OECD (2015). *PISA 2015 key findings for Hungary*. As of 22 July 2019: <https://www.oecd.org/hungary/pisa-2015-hungary.htm>

³²⁶ Eurostat (2019) *Tertiary educational attainment by sex, age group 30-34*. as of 29 August 2019: https://ec.europa.eu/eurostat/databrowser/view/t2020_41/default/table?lang=en

³²⁷ Eurydice (2019). *Hungary: Ongoing Reforms and Policy Developments*. As of 22 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/ongoing-reforms-and-policy-developments-29_en

³²⁸ CNN (22 October 2019). *Hungary's PM bans gender study at colleges saying 'people are born either male or female*. As of 22 July 2019: <https://www.cnn.com/2018/10/19/europe/hungary-bans-gender-study-at-colleges-trnd/index.html>

As is the case in many European countries, education is a major policy priority in Hungary – although it is viewed firmly as a national rather than international issue and there is limited desire for cooperation with Europe on the matter. Whilst the country remains subscribed to European education initiatives, it is a while since it has taken them seriously and today they are largely neglected by the majority of EU countries.

Typical of the broader European shift towards a focus on mainstream school education at the expense of higher education, secondary education has seen more investment– which has gone some way towards addressing the problem of early school leavers which was so pressing during the early 2020s. A greater focus on personalised learning is prevalent within schools, although the reluctance of the government to relinquish control over the curriculum has meant this has not had as great an effect in terms of improving educational outcomes as has occurred in other Member States – where schools have greater autonomy. Vocational education and adult learning have also experienced greater investment, and are seen as crucial to help address the skills mismatches that have long been high on the agenda. While the labour market is changing due to the combination of increasing automation in the workplace and limited labour mobility, the pace is much slower than foreseen and jobs currently seem fairly secure.

Higher education, however, has largely been neglected, and as a result attendance has remained constant over the past decade. As the EU struggles to maintain a coherent front across a range of policy areas, further steps taken by the government to limit academic freedom and increase control over universities have gone relatively unchallenged at the European level and by a complacent population. The government now determines the subjects in which universities are allowed to award degrees; these are now mainly technical subjects and reflect demand for particular skill sets so that graduates are able to find employment relatively easily. Arts and humanities receive little to no funding and very few students choose to study them. Observers warn of the detrimental effect of this narrowing of the curriculum as civil participation continues to wane.

5.5 Case study UK: A stagnant, unequal post-Brexit United Kingdom in 2035

The education system in the UK is characterised by the devolution processes of the late 1990's, with each constituent country's education system under the control of its respective devolved government – save for England, which is the responsibility of the UK Government. Common across all systems is that full-time education is compulsory between the ages of 5 and 16 (4 and 16 in Northern Ireland), and delivered free in public institutions.³²⁹ The UK also has a strong independent school tradition, and around 6.5 per cent of the school-age population are privately educated.³³⁰ Higher education has a high uptake (45.7 per cent of young people are expected to obtain a bachelor's degree during their lifetime)³³¹ and is funded primarily by tuition fees – which are capped for UK/EU students and backed by public loans.³³²

Despite recent structural reforms in England and Scotland, educational inequality remains considerable throughout the UK, and as the Department for Education's (DfE) 2015-20 strategy document highlights: 'children's outcomes are still much too heavily influenced by where they live, their background and their previous attainment.'³³³ As such, eliminating educational inequality and enhancing inclusion forms a major contemporary policy focus and is a priority of all the devolved administrations.^{334,335,336,337} Another recent UK-wide development has been a shift towards giving schools greater autonomy over curricula and spending in the hope this will improve standards and quality of education. In England, 72 per cent of secondary schools are now academies and are independent from local authority control.³³⁸

2019



Ostrich Europe

Although education funding is seen as critical, co-operation between Member States is in decline and education and labour market issues are discussed and addressed in isolation. While the economic situation might look good in the short term, and society is not particularly concerned about the future, there are clear indications that the situation is not sustainable.

³²⁹ Eurydice (2018). *United Kingdom – England Overview*. As of 22 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/united-kingdom-england_en

³³⁰ Independent Schools Council. (n.d.). *Research*. As of 22 July 2019: <https://www.isc.co.uk/research/>

³³¹ OECD Education GPS (2018). *United Kingdom: Overview of the Education System*. As of 22 July 2019: <http://gpseducation.oecd.org/CountryProfile?plotter=h5&primaryCountry=GBR&treshold=10&topic=EO>

³³² UK Government. (n.d.) *Student Finance*. Retrieved on 23 July 2019: <https://www.gov.uk/student-finance>

³³³ UK Department for Education (2016). *DfE Strategy 2015-2020*. As of 22 July 2019: <https://www.gov.uk/government/publications/dfes-strategy-2015-to-2020-world-class-education-and-care>

³³⁴ Education Scotland (2016). *Delivering Excellence and Equity in Scottish Education – A Delivery Plan for Scotland*. As of 22 July 2019: <https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2016/06/delivering-excellence-equity-scottish-education-delivery-plan-scotland/documents/00502222-pdf/00502222-pdf/govscot%3Adocument/00502222.pdf>

³³⁵ Education Authority (NI) (2017). *Interim Strategic Plan 2017-2027*. As of 22 July 2019: https://strategicplan.eani.org.uk/documents/EA_Strategic_Plan_2017.pdf

³³⁶ Welsh Government (2017). *Education in Wales: Our national mission*. As of 22 July 2019: <https://gov.wales/sites/default/files/publications/2018-03/education-in-wales-our-national-mission.pdf>

³³⁷ UK Department for Education (2016). *DfE Strategy 2015-2020*. As of 22 July 2019: <https://www.gov.uk/government/publications/dfes-strategy-2015-to-2020-world-class-education-and-care>

³³⁸ National Audit Office (2018). *Converting Maintained Schools to Academies*. As of 22 July 2019: <https://www.nao.org.uk/press-release/converting-maintained-schools-to-academies/>

Whilst the economic situation in the EU appears to be relatively bright, at least in the short term, this is not case in the UK which is still struggling to recover from a decade of intermittent recession following its no-deal exit from the EU in October 2019.

A key government priority, education spending has remained relatively consistent as a share of GDP since 2020. However, it has declined in real terms due to a combination of GDP stagnating and inflation increasing in the decade following the UK's exit from the EU. Despite efforts to address educational inequality by the DfE and devolved administrations, the wider economic downturn has meant that it has in fact increased substantially throughout the UK - particularly outside London. Regions such as the North East of England, which relied heavily on manufacturing and suffered considerably during the 2020s as a result of industry relocating to the EU, have been particularly hard hit, and the loss of access to EU funding opportunities has only served to exacerbate this. The gulf in quality between private and state schools has never been wider, and the costs of higher education have become increasingly prohibitive for students from poor socio-economic backgrounds as tuition fees have risen faster than wages. This is despite the UK government bucking the wider European trend and aiming to increase the number of students in tertiary education through widening access to qualifications and maintaining a high level of funding. This is a direct attempt to counterbalance the labour market effects of the 'brain drain' to emerging economies, which has affected all of Europe and has been particularly damaging to the UK.

Whilst it no longer subscribes to the European Commission's ET2030 policy agenda, the UK has developed its own targets to work towards. These share some of ET2030's main aspirations, including a commitment to enhance quality, improve equity and promote entrepreneurship within education.

However, with no independent oversight, these targets have become vulnerable to political pressure, and have been altered several times over the past 15 years by successive governments to suit their respective policy agendas. In addition, the lack of opportunities to collaborate with, and receive support from, other European states has hindered the effectiveness of the UK's efforts to achieve these goals, and many benchmarks had not been met by 2030. In higher education, research collaboration has decreased, and without the Erasmus scheme, the share of UK students who study in Europe (and vice-versa) has fallen considerably.

5.6 Case study Estonia: Estonia in a fragmented Europe in 2035

In Estonia, public education is free at primary and secondary school levels, while tuition fees vary for tertiary education, depending on the institution and the subject area.³³⁹ Fulfilling the compulsory basic education generally takes nine years.³⁴⁰

The Estonian education system is characterised by strong decentralisation. Decisions are primarily taken by regional or sub-regional authorities for public lower secondary education.³⁴¹ Schools may use their discretion to adjust national curricula and choose some of the subjects taught.³⁴² Estonia's recent success in the OECD PISA study has been considered to result from wider educational reform that has been based on developing national curricula, vocational education and teacher training.³⁴³ Nevertheless, Russian-language schools continue to achieve significantly lower results in international student assessments.³⁴⁴

The country seeks to emphasise the teaching of digital competences, defined as "readiness to use digital technology to cope in a rapidly changing knowledge-based society."³⁴⁵ The Estonian Lifelong Learning Strategy 2020 maintains that 80 per cent of the population should possess computer skills by 2020, and that digital technology and learning resources should be integrated into all levels of education.³⁴⁶ The Strategy also highlights the need to "improve the level of Estonian language learning in Russian-language schools." The share of students in these schools who speak Estonian at a level B1 or higher was 56.5 per cent in 2012, the country's aim in the Lifelong Learning Strategy 2020 was to reach 90 per cent by 2020.³⁴⁷

2019

Fragmented Europe

While society and industry have embraced digitalisation, albeit at different rates across the EU, the education system has failed to prepare students for this change and workers are not able to play their role in the labour market, with disastrous consequences for the economy and society.

³³⁹ Study in Estonia, (n.d.), *Tuition fees*, As of 26 July 2019: <http://www.studyinestonia.ee/en/tuition-fees>

³⁴⁰ Ministry of Education and Research (n.d.), *Pre-school, basic and secondary education*, As of 26 July 2019: [Republic of Estonia \(n.d.\), Pre-school, basic and secondary education, https://www.hm.ee/en/activities/pre-school-basic-and-secondary-education](https://www.hm.ee/en/activities/pre-school-basic-and-secondary-education)

³⁴¹ Reiska, P., (n.d.), *Estonian success in PISA – what are the reasons behind that?*, As of 26 July 2019: https://www.hm.ee/sites/default/files/henno_presentation_final_pisa_191114.pdf

³⁴² Santiago, P. et al., (2016), *OECD Reviews of School Resources: Estonia 2016*, OECD Reviews of School Resources, OECD Publishing, pp.67 Paris. As of 26 July 2019: <https://www.oecd-ilibrary.org/docserver/9789264251731-5-en.pdf?expires=1564145772&id=id&accname=ocid56013842&checksum=6FC71DEF3DE29F5094C7A3B252F412BB>

³⁴³ Republic of Estonia, Ministry of Education and Research, (n.d.), *Digital focus*. As of 26 July 2019: <https://www.hm.ee/en/activities/digital-focus>

³⁴⁴ Republic of Estonia, Ministry of Education and Research, (2014), *The Estonian Lifelong Learning Strategy 2020*, As of 26 July 2019: https://www.hm.ee/sites/default/files/estonian_lifelong_strategy.pdf

³⁴⁵ Ibid.

³⁴⁶ Ibid.

³⁴⁷ Ibid.

Even though Estonia set out to boost the digital competences of its citizens with its 2020 strategy, these initiatives have not been flexible enough to adapt them to the changing world. Coupled with structural changes in the economy and the adoption of automation and artificial intelligence across different industries and sectors, Estonia is experiencing high unemployment.

As intra-European labour mobility has decreased, local businesses are suffering from a shortage of proficient employees, and unemployed Estonians have limited opportunities to seek employment elsewhere in Europe. European programmes on life-long learning and student exchange, such as Erasmus+, have been substantially scaled back. There are only few possibilities for Estonian students to develop intercultural and language competences.

Successive governments have sought to reform the education system. Nevertheless, these changes have had adverse effects on the quality of education, as reducing the local authorities' discretion on education has led to significant decreases in levels of innovation. Whereas fifteen years ago teachers in primary and secondary schools had a high level of autonomy to decide on their pedagogical methods, there is now excessive oversight over teaching activities. Teaching is no longer considered a valuable profession in the Estonian society.

As Estonian education policies have not been capable of endowing workers with the skills they need to succeed in the labour market, public attitudes toward education have gradually changed. Increasingly Estonians do not value education; national pride in a high PISA rating, for example, has rapidly faded and lifelong learning is considered pointless by many. This has led to significant pressure to reduce public financing towards education: funding levels have dropped significantly since 2020. There is a high level of absenteeism, even though the school attendance is still mandated by law.

Some private schools located in the major cities still provide a high level of education to their students. However, the tuition and fees of these schools are unattainable to most Estonians. Areas that are most seriously under-served include those in which majority of inhabitants speak Russian or with migrant populations. Tensions between those who speak Estonian and those who speak Russian are mounting.

5.7 Case study Spain: A cold-feet Spain in 2035

Spain is a decentralised country where educational competences are shared between the General State Administration and the Autonomous Communities. Students' performance, the education expenditure and the vehicular language of instruction differ across regions. In the past 40 years of democracy, education laws and reforms were highly correlated to political changes.

Education in public schools is free from 6 to 16 years old. Besides public and private education institutions, Spain also has publicly-funded private institutions, which are partially paid by students' families' but also receive public funding.³⁴⁸ Due to the financial crisis, public expenditure in education has decreased considerably and still remains lower than the EU average. In 2017, 4.24 per cent of the GDP was spent on education and most of the spending was allocated in equal parts to primary and secondary education.³⁴⁹ However, the rate of spending in 2017 is far behind the rates before the crisis (4.99 per cent in 2009). In standardized exams, such as PISA, Spain scores around the average. In 2015, Spain's performance was at the OECD average in science, reading and slightly below the OECD average in mathematics.³⁵⁰

The education system faces three main challenges, which have been highlighted by the European Commission: reduce early school leaving and the differences in education performance between the Autonomous Communities; increase public investment in research and innovation; and increase cooperation between education institutions and companies with a view to mitigate existing skills mismatches.³⁵¹

Cold-feet Europe

2019

Although education funding is seen as critical, co-operation between Member States is in decline and education and labour market issues are discussed and addressed in isolation. While the economic situation might look good in the short term, and society is not particularly concerned about the future, there are clear indications that the situation is not sustainable.



2035

³⁴⁸ Eurydice, (2019). "Spain overview", As of 29 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/spain_en

³⁴⁹ Ministerio de Educación y Formación Profesional (2019). "Estadística del Gasto Público en Educación".

³⁵⁰ OECD (2018), *Education Policy Outlook: Spain*, As of 29 July 2019: <https://www.oecd.org/education/Education-Policy-Outlook-Country-Profile-Spain-2018.pdf>

³⁵¹ European Commission (2018). *Country Report Spain 2018*, As of 29 July 2019: <https://ec.europa.eu/info/sites/info/files/2018-european-semester-country-report-spain-en.pdf>

Although digitalisation was seen as key to increasing productivity in the early 2020s, the Spanish economy hasn't benefited substantially from it. This is explained by a lack of investment in research and innovation (the opposite of what the European Commission suggested 15 years ago) and an economy that mainly depends on tourism, real estate in addition to manufacturing and agriculture.

Similarly to other Member States, the unemployment rate is increasing despite new types of jobs being created, particularly as manufacturing and agriculture become more mechanised. There have been some regional successes. For instance, Barcelona, which holds the annual Mobile World Congress and has had one of Europe's most powerful supercomputers since 2021, was able to transform to a digital economy. Other sectors, like health, have as yet been unaffected by automation; Spain still has the most efficient health system in Europe and is ranked in the top 10 worldwide. Unfortunately, the rate of young graduates who rely on precarious employment continues to be much higher than the EU average. To address this, the education system is in a process of transformation, with a strong focus on VET and participation in adult learning.

Spain has increased public spending in education and is really close to the EU average. With support from EU funding programmes, the different administrations have also invested more in early childhood education, and provided teachers with continuous professional training on digital skills. Schools are gradually providing the skills necessary for a technology led workplace. For this reason, mathematical, science and technological skills have been strengthened in compulsory secondary education. Consequently, younger people have not dropped out from school, reducing the early school leaving rate and fulfilling the target set by the EU.

Although co-operation at the EU level has plateaued, Spanish universities now follow a similar structure to other EU universities. This has facilitated mobility towards other EU Member States, with Spanish students tending to then stay in host countries to pursue further studies and work, raising concerns about a potential brain drain.

The increase in education expenditure and in unemployment is causing concern among citizens. Even if the education system is better preparing students for the changing workplace, the economic model is still unproductive; a situation unlikely to be resolved in the current political climate. As a consequence, young qualified students are migrating to other EU countries, such as the UK, France and Germany. In addition, retired people are worried about their pensions and older workers who have recently lost their jobs are afraid of losing unemployment benefits.

5.8 Case study France: Growing inequalities in a better educated French Republic in 2023

France's long tradition of centralisation defines the organisation of the education system. While local authorities are responsible for the material operations of educational institutions, the Ministry of Education is in charge of the national curriculum applied across the country, teachers' training and funding across all levels of education³⁵².

Education in public institutions is free and, as of 2019, compulsory from three years old.³⁵³ Tertiary education is split into two systems: public universities with an open admissions policy and low fees, and a 'non university' sector, including *Grandes Écoles*, which have a selective admissions policy and, in most cases, high tuition fees.³⁵⁴

Despite multiple reforms in recent years, the French educational system is characterised by strong inequalities, both territorial and social. Additionally, students' performance in primary school has been decreasing since 2000, with lower performances in science and mathematics notably.³⁵⁵ The long-held focus of national policies on secondary education is now shifting towards primary education to address this issue. In 2017, national spending on education represented 6.7 per cent of the GDP, a significant increase since the previous year due to the shift towards investing in primary education.³⁵⁶ In recent years, inclusive education has become a priority in education policy, with a focus on children from disadvantaged backgrounds and children with special educational needs.^{357,358}

2019

Ostrich Europe

Although education funding is seen as critical, co-operation between Member States is in decline and education and labour market issues are discussed and addressed in isolation. While the economic situation might look good in the short term, and society is not particularly concerned about the future, there are clear indications that the situation is not sustainable.

- ³⁵² Eurydice (2019). 'France overview', As of 18 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/france_en
- ³⁵³ Ministère de l'Éducation Nationale et de la Jeunesse (2019). 'Pour une École de la confiance : l'instruction obligatoire à 3 ans', As of 18 July 2019: <https://www.education.gouv.fr/cid140324/pour-une-ecole-confiance-instruction-obligatoire-ans.html>
- ³⁵⁴ Eurydice (2019). 'France overview', As of 18 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/france_en
- ³⁵⁵ France Stratégie (2017). *Quelle autonomie pour les établissements scolaires?*. France Stratégie: Paris. As of 18 July 2019: https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/2017-2027-actions-critiques-autonomie-etablissements_1.pdf
- ³⁵⁶ Ministère de l'Éducation Nationale et de la Jeunesse (2019). *L'état de l'école 2018. 29 indicateurs sur le système éducatif français*. N.28. Ministère de l'Éducation Nationale et de la Jeunesse: Paris. As of 18 July 2019: https://cache.media.education.gouv.fr/file/etat28/13/5/depp-2018-ee_1043135.pdf
- ³⁵⁷ Ministère de l'Éducation Nationale et de la Jeunesse (2018). *Ensemble pour l'école Inclusive*. Retrieved on 18 July 2019: https://cache.media.education.gouv.fr/file/07_-_Juillet/80/0/DP_Ensemble_pour_l_ecole_inclusive_complet_984800.pdf
- ³⁵⁸ Gouvernement.fr (2018). 'Stratégie de prévention et de lutte contre la pauvreté'. As of 18 July 2019: <https://www.gouvernement.fr/action/strategie-de-prevention-et-de-lutte-contre-la-pauvrete>

The French education system has remained centralised and, although, as a top priority of recent governments, the sector has benefitted from increased public funding since the late 2010s, this has been limited by the slow pace of the economy. However, with support from EU programmes, it has been possible to introduce a steady level of innovation in not only private but also public schools across the country.

In particular, early and primary education have experimented with personalised learning. The implementation of ICT-supported personalised learning in all public schools in 2028 had a positive impact on students' performance in basic skills, including mathematics and science and contributed to reducing inequality in educational outcomes.

The growth of the ICT sector has also contributed to the creation of new jobs, as these can often be done remotely. Local funding at department-level is also available to encourage start-ups. In order to prepare students for this labour market, the Ministry of Education has dedicated part of the mainstream school curriculum to ICT-related skills, including both technical and digital navigation skills, and offers financial incentives for young graduates to work these sectors. Meanwhile, older workers and those who have been most affected by the automation of the manufacturing sector can benefit from retraining opportunities.

Education funding has shifted back to focusing on secondary and vocational sectors, which meant that, in higher education, a strong divide has appeared between free public institutions and increasingly exclusive *Grandes Écoles*, which are leading research and innovation in cooperation with private companies. Innovative research programmes are only available to those who can afford ever higher fees. With limited resources, public universities only offer a few disciplines and focus on those which respond to current labour needs. This means there are limited opportunities to study humanities. Additionally, reduced EU funding for higher education means that students have to cover their fees abroad for programmes like Erasmus +, which have become unaffordable to most students.

Overall, French citizens feel that they have better prospects than in 2020, with lower immigration and young people benefiting from an education that is better aligned with the current labour market. However, there is some concern that the system remains rather inflexible to future changes in employment needs and has not done enough to tackle inequality.

5.9 Case study Hungary: A forward-thinking, inclusive and outward looking Hungary in 2035

Since the adoption of the Public Education Act in 2011, the Hungarian education system is highly centralised, with local authorities relinquishing responsibility for the organisation and maintenance of public education institutions (above kindergarten level) to the central government.³⁵⁹

Education in public institutions is both free and compulsory between the ages of 3 and 16, and access to higher education is available to all according to ability,³⁶⁰ with the state funding approximately two thirds of all university places.³⁶¹ Despite this, only 25.5 per cent of young people are expected to achieve a bachelor's degree.³⁶² More broadly, participation in upper-secondary and post-secondary vocational education is significantly below the EU average,³⁶³ and attainment in secondary education has steadily declined since 2006.³⁶⁴ While it is increasing in the EU overall, tertiary education attainment is also declining in Hungary.³⁶⁵ In light of this, the government's main policy priorities are to reduce the number of early school leavers and improve basic competences, which are reflected in the 2014–20 General Education Strategy.³⁶⁶

In recent years, the Hungarian government has taken steps to limit academic freedom in higher education. In 2017, the Higher Education Law was amended making it difficult for international universities to operate, and in 2018 gender studies was banned as an academic discipline.³⁶⁷ Due to these conditions, Central European University (CEU), one of Hungary's most prestigious independent universities, announced its decision in December 2018 to begin to relocate from Hungary to Austria.

2019

Aligned Europe

By 2035 technological innovation and the creation of many high-skilled jobs has led to a booming economy. Education has been at the top of the EU's spending agenda for the past fifteen years, with investment in technology-aided personalised learning creating a model of education that is more accessible to all.

2035

³⁵⁹ Eurydice (2019). *Hungary Overview*. As of 22 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/hungary_en

³⁶⁰ Nemzeti Jogszabálytar (2011). *Magyarország Alaptörvénye*. As of 22 July 2019: http://njt.hu/cgi_bin/njt_doc.cgi?docid=140968.356004

³⁶¹ Eurydice (2017). *National Student Fee and Support Systems in European Higher Education – 2017/18*. As of 22 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/national-student-fee-and-support-systems-european-higher-education-%E2%80%93-2017-18_en

³⁶² OECD Education GPS (2018). *Hungary: Overview of the Education System*. As of 22 July 2019: <http://gpseducation.oecd.org/CountryProfile?primaryCountry=HUN&treshold=10&topic=EO>

³⁶³ Eurydice (2019). *Hungary: Ongoing Reforms and Policy Developments*. As of 22 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/ongoing-reforms-and-policy-developments-29_en

³⁶⁴ OECD (2015). *PISA 2015 key findings for Hungary*. As of 22 July 2019: <https://www.oecd.org/hungary/pisa-2015-hungary.htm>

³⁶⁵ Eurostat (2019) *Tertiary educational attainment by sex, age group 30-34*. as of 29 August 2019: https://ec.europa.eu/eurostat/databrowser/view/t2020_41/default/table?lang=en

³⁶⁶ Eurydice (2019). *Hungary: Ongoing Reforms and Policy Developments*. As of 22 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/ongoing-reforms-and-policy-developments-29_en

³⁶⁷ CNN (22 October 2019). *Hungary's PM bans gender study at colleges saying 'people are born either male or female'*. As of 22 July 2019: <https://www.cnn.com/2018/10/19/europe/hungary-bans-gender-study-at-colleges-trnd/index.html>

In light of the EU's prioritisation of education, the Hungarian education system has undergone considerable change – becoming more efficient, equitable, and producing better outcomes for young people. Whilst the system remains centralised, schools have been granted much more autonomy to determine their curriculum and teaching methods. Across the EU, personalisation within education is seen as the most effective way of improving attainment and accessibility, and schools in Hungary have largely adopted this approach. This has led to a consistent reduction in the number of early school leavers and substantial improvements in PISA test scores over the past decade and a half. Attention has also been paid towards addressing regional inequality, and Hungary has benefitted considerably from EU initiatives in this sphere – which have increased both in number and scope as a result of the EU's enlarged education budget.

Much has been done to improve access to higher education: all places at public institutions are now publically funded, and comprehensive financial support is more accessible for disadvantaged students. As a result, the percentage of students in Hungary attending university has increased dramatically.

Typical of the wider European political climate the government have moved towards a more centrist, pro-EU outlook. The Higher Education Law was amended in the early 2020s, and provisions limiting academic freedom were lifted. Universities enjoy great autonomy. Reflecting the goals of the current EUYS (2028-2036) to strive towards a more connected Europe for young people, as well as the continued focus on mobility within education outlined in the ET2030 framework, cooperation across the EU in higher education is widespread. Agreements of cooperation similar to that between CEU and the Technical University of Munich are commonplace and more Hungarian students than ever before study and work abroad due to the continued expansion of the Erasmus scheme.

5.10 Case study UK: A United Kingdom remaining afloat in the EU in 2035

The education system in the UK is characterised by the devolution processes of the late 1990's, with each constituent country's education system under the control of its respective devolved government – save for England, which is the responsibility of the UK Government. Common across all systems is that full-time education is compulsory between the ages of 5 and 16 (4 and 16 in Northern Ireland), and delivered free in public institutions.³⁶⁸ The UK also has a strong independent school tradition, and around 6.5 per cent of the school-age population are privately educated.³⁶⁹ Higher education has a high uptake (45.7 per cent of young people are expected to obtain a bachelor's degree during their lifetime)³⁷⁰ and is funded primarily by tuition fees – which are capped for UK/EU students and backed by public loans.³⁷¹

Despite recent structural reforms in England and Scotland, educational inequality remains considerable throughout the UK, and as the Department for Education's (DfE) 2015-20 strategy document highlights: 'children's outcomes are still much too heavily influenced by where they live, their background and their previous attainment.'³⁷² As such, eliminating educational inequality and enhancing inclusion forms a major contemporary policy focus and is a priority of all the devolved administrations.^{373,374,375,376} Another recent UK-wide development has been a shift towards giving schools greater autonomy over curricula and spending in the hope this will improve standards and quality of education. In England, 72 per cent of secondary schools are now academies and are independent from local authority control.³⁷⁷

2019

Ostrich Europe

Although education funding is seen as critical, co-operation between Member States is in decline and education and labour market issues are discussed and addressed in isolation. While the economic situation might look good in the short term, and society is not particularly concerned about the future, there are clear

2035

³⁶⁸ Eurydice (2018). *United Kingdom – England Overview*. As of 22 July 2019: https://eacea.ec.europa.eu/national-policies/eurydice/content/united-kingdom-england_en

³⁶⁹ Independent Schools Council. (n.d.). *Research*. As of 22 July 2019: <https://www.isc.co.uk/research/>

³⁷⁰ OECD Education GPS (2018). *United Kingdom: Overview of the Education System*. As of 22 July 2019: <http://gpseducation.oecd.org/CountryProfile?plotter=h5&primaryCountry=GBR&treshold=10&topic=EO>

³⁷¹ UK Government. (n.d.) *Student Finance*. Retrieved on 23 July 2019: <https://www.gov.uk/student-finance>

³⁷² UK Department for Education (2016). *DfE Strategy 2015-2020*. As of 22 July 2019: <https://www.gov.uk/government/publications/dfes-strategy-2015-to-2020-world-class-education-and-care>

³⁷³ Education Scotland (2016). *Delivering Excellence and Equity in Scottish Education – A Delivery Plan for Scotland*. As of 22 July 2019: <https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2016/06/delivering-excellence-equity-scottish-education-delivery-plan-scotland/documents/00502222-pdf/00502222-pdf/govscot%3Adocument/00502222.pdf>

³⁷⁴ Education Authority (NI) (2017). *Interim Strategic Plan 2017-2027*. As of 22 July 2019: https://strategicplan.eani.org.uk/documents/EA_Strategic_Plan_2017.pdf

³⁷⁵ Welsh Government (2017). *Education in Wales: Our national mission*. As of 22 July 2019: <https://gov.wales/sites/default/files/publications/2018-03/education-in-wales-our-national-mission.pdf>

³⁷⁶ UK Department for Education (2016). *DfE Strategy 2015-2020*. As of 22 July 2019: <https://www.gov.uk/government/publications/dfes-strategy-2015-to-2020-world-class-education-and-care>

³⁷⁷ National Audit Office (2018). *Converting Maintained Schools to Academies*. As of 22 July 2019: <https://www.nao.org.uk/press-release/converting-maintained-schools-to-academies/>

Despite remaining a member of the EU, the UK has experienced relatively sluggish growth over the previous decade. Much like the rest of Europe, it has fallen behind many emerging economies and despite the revocation of Article 50 15 years ago, many people remain sceptical of an EU which has demonstrated both a lack of desire and ability to confront many of today's major international challenges.

Education has remained a top priority of both the UK government and devolved administrations, and schools and pupils have benefitted from considerable investment over the past 15 years. In a continuation of the government policy of the early 2020s, greater autonomy has been granted to schools and virtually all secondary schools in England now have academy status and can determine their own curriculum and spending. Thanks to increased investment in secondary education, and in line with the broader European trend, schools have looked increasingly towards personalised teaching methods as a means of improving educational outcomes. This has served to help improve inclusion and equity throughout the school system, which have remained key policy goals of the DfE and feature prominently in its 2030-35 school strategy. Personalisation has also allowed for a greater alignment between educational outcomes and labour market requirements, particularly within the ICT sector – which is one of the few in the UK which is thriving.

Unlike in other European states, where higher education has experienced neglect resulting from years of prioritisation of the mainstream school sector, the tuition fee system has allowed UK universities to maintain a relatively consistent level of funding. However, as a result of the UK government raising the cap on fees to help achieve this, fee increases have meant higher education has become less accessible to poorer students. Whilst within universities there is some research focus on the impact of new technologies, this is relatively limited and confined to the UK – these days there is little cooperation with other European universities. Less students study abroad and Erasmus has experienced considerable reductions in funding.

This study examines possible scenarios (both aspirational and disruptive) for future developments for the education and youth sectors. It also identifies and assesses the policy implications of these scenarios. Ultimately, the study informs EU policy-makers, in particular MEPs, on policy options and their implications for the education and youth sectors in the EU, and seeks to help them prepare for the scenarios identified (both in terms of facing challenges and embracing opportunities).

PE 629.204
IP/B/CULT/IC/2019-007

Print ISBN 978-92-846-5459-8 | doi:10.2861/ 42172 | QA- 02-19-640-EN-C
PDF ISBN 978-92-846-5458-1 | doi:10.2861/ 502925 | QA- 02-19-640-EN-N