



Study on the Youth Guarantee in light of changes in the world of work

Part 1

Youth Guarantee: Intervention Models, Sustainability
and Relevance



Written by Marco Caliendo, Jochen Kluge, Jonathan Stöterau,
and Stefan Tübbicke with contributions from Claire Dheret,
Kari Hadjivassiliou and Francesco Pastore
November - 2018



The Youth Guarantee in light of changes in the world of work:
Youth Guarantee: Intervention Models, Sustainability and Relevance

EUROPEAN COMMISSION

Directorate-General for Employment, Social Affairs and Inclusion
Directorate B — Employment
Unit B.1 — Employment Strategy

Contact: Pablo Cornide

E-mail: EMPL-PES-SECRETARIAT@ec.europa.eu

*European Commission
B-1049 Brussels*

Study on the Youth Guarantee in light of changes in the world of work

Part 1

Youth Guarantee: Intervention Models, Sustainability and Relevance

***Europe Direct is a service to help you find answers
to your questions about the European Union.***

Freephone number (*):

00 800 6 7 8 9 10 11

(* The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

LEGAL NOTICE

This document has been prepared for the European Commission, however, it reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

More information on the European Union is available on the Internet (<http://www.europa.eu>).

Luxembourg: Publications Office of the European Union, 2018

ISBN: 978-92-79-99983-3

doi: 10.2767/371432

© European Union, 2018

The European Network of Public Employment Services was created following a Decision of the European Parliament and Council in June 2014¹. Its objective is to reinforce PES capacity, effectiveness and efficiency. This activity has been developed within the work programme of the European PES Network. For further information: <http://ec.europa.eu/social/PESNetwork>.

This publication has received financial support from the European Union Programme for Employment and Social Innovation "EaSI" (2014-2020). For further information please consult: <http://ec.europa.eu/social/easi>.

¹ DECISION No 573/2014/EU

Table of contents

1. The Youth Guarantee: background and outline of the study	6
1.1. The youth employment challenge in the European Union	6
1.2. The Youth Guarantee	8
1.3. Outline of the project and the present report	9
2. Implementation features of the YG and related indicators	10
2.1. Features of Youth Guarantee implementation	10
2.1.1. Financial resources for implementing the Youth Guarantee	10
2.1.2. The Youth Guarantee as part of national policy-making	14
2.1.3. Youth labour market challenges	17
2.1.4. The heterogeneity of the NEET population	21
2.1.5. Design and implementation features of the Youth Guarantee	24
2.1.6. The role of the apprenticeship system in the Youth Guarantee	26
2.2. Empirical indicators of Youth Guarantee features	28
2.2.1. Indicator set 1: Financial resources for implementing the Youth Guarantee	28
2.2.2. Indicator set 2: The Youth Guarantee as part of national policy-making	29
2.2.3. Indicator set 3: Youth labour market challenges	30
2.2.4. Indicator set 4: The heterogeneity of the NEET population	31
2.2.5. Indicator set 5: Design and implementation features of the Youth Guarantee	31
2.2.6. Indicator set 6: The role of the apprenticeship system in the Youth Guarantee	32
2.3. Conclusion	32
3. Typology of Youth Guarantee models	33
3.1. Empirical approach to establishing Youth Guarantee models	33
3.2. Description of first-step clusters	34
3.2.1. Indicator set 1: Financial resources	34
3.2.2. Indicator set 2: Youth Guarantee as part of national policy-making	34
3.2.3. Indicator set 3: Youth labour market challenges	35
3.2.4. Indicator set 4: The heterogeneity of the NEET population	35
3.2.5. Indicator set 5: Design and implementation features of the Youth Guarantee	36
3.2.6. Indicator set 6: The apprenticeship system	36
3.2.7. Summary of first-step cluster analysis	37
3.3. Results and discussion of second-step clusters	38
3.4. Conclusion of second-step clusters	41
3.5. Measures of performance	41
3.6. Assessing the correlation between Youth Guarantee models and performance	44
4. Summary and conclusions	46
References	49
Annex	53

List of Figures

Figure 1. Youth unemployment rates (15-24 years old) in EU Member States, 2015 compared to 2018	7
Figure 2. Rates of young people (15-24 years old) not in employment, education or training (NEET) in EU Member States, 2015, 2017	8
Figure 3. Absolute number of youth-related active labour market reforms between 2013 and 2016	14
Figure 4. Composition of the EU NEET population (percentage of the population of young people) .	23
Figure 5. Number of indicators identified by variable set	33
Figure 6. YG-monitoring data performance indicators by Member States	43
Figure 7. Eurostat performance indicators by Member States	44
Figure 8. YG monitoring data performance indicators by clusters	45
Figure 9. Aggregate performance measures	46

List of Tables

Table 1. Overview of actors involved in implementing the YG in 10 Member States	16
Table 2. Summary of Results of Cluster Analysis	38
Table 3. List of indicators	53
Table 4. Outcome cluster means	57

Executive summary

The economic recession following the financial crisis, and its prolonged aftermath, compounded the challenge that substantial youth unemployment put on the Member States of the European Union. In addition, changes in the world of work, for example increasingly complex school-to-work transitions and new challenges arising from rapid technological changes may further impede the labour market prospects of young people.

The Youth Guarantee (YG) was launched as a Council Recommendation adopted by all Member States in 2013, in particular as a response to the high cyclical unemployment among its youth. The YG meant that all young people aged between 15 and 24 would receive a good quality offer of employment, training, education or apprenticeship within a period of four months of becoming unemployed or leaving formal education. Following this recommendation, EU Member States took steps to introduce such a scheme, albeit with widely varying national approaches on (among many other differences) target groups, timing, the types of interventions used and the types of partnerships.

This report synthesises the vast amount of available information on the implementation of the YG and its performance. Based on an extensive desk research in its first part, the study identifies six key aspects of YG implementation and delivery as well as background characteristics that are important determinants of YG performance across Member States: specifically, these are (1) the financial resources for implementing the YG, (2) the role of the YG as part of national policy making, (3) challenges for the youth labour market, (4) the heterogeneity of the NEET population, (5) the design and implementation features of the YG, and (6) the role of the apprenticeship system in the Youth Guarantee. The overall findings of desk research and data analysis indicate that, in sum, EU funding via the Youth Employment Initiative (YEI) and the European Social Fund (ESF) played a key role in supporting YG measures financially, especially for countries suffering from simultaneously high NEET rates and a significant economic downturn or structural labour market challenges. Many of these countries increased spending on active labour market policies, which can be interpreted with caution as an indirect effect of the YG. In some Member States the YG also fostered the introduction of reforms to national youth policies, improvements in monitoring systems for youth activation policies, and the building of new partnerships. These changes are likely to outlast the YG initiative and thereby provide sustained and ongoing benefits.

Whereas these are substantive, positive changes brought about by the YG, not all of its objectives were achieved. First, neither reducing labour market segmentation through quality offers nor providing a remedy for imperfectly performing education systems was fully achieved. One reason was a prevalence of employment offers compared to relatively few education or apprenticeship offers in the YG. The low share of apprenticeship offers in some Member States appears to be related to the institutional setup and school-to-work (STW) transition regime: increasing the prominence of the apprenticeship system would need to be accompanied by broader institutional change. Second, several Member States were not able to fully address the heterogeneity of the NEET population – especially those furthest away from the labour market. In contrast, countries that performed well generally improved the capacity of their Public Employment Services (PES) and developed partnerships to implement strong outreach programmes.

The second part of the study builds on the six key aspects to develop a Youth Guarantee typology: this novel approach uses cluster analysis techniques to identify groups of similar countries. This analysis highlights several insights for the implementation of the Youth Guarantee across Member States: firstly, country clusters within the single key aspects are not always the same as the final country clusters for all six key aspects. Second, certain contextual and implementation variables are clearly correlated, suggest-

ing that some implementation features relate to each other: for instance, some countries with a low estimated cost for implementing the YG tend to be countries that closely followed the Recommendation, in particular in terms of timing of the intervention and target groups chosen. Other Member States with a more pronounced NEET challenge are more likely to deviate from the recommendation, for example by increasing the targeted time frame of intervention.

The most comprehensive version of the cluster analysis simultaneously takes into account all six key aspects and a total of 76 empirical indicators that properly reflect these key aspects, and identifies five final clusters:

Cluster A: Member States with previous YG experience, lower initial NEET rates, ambitious implementation and improved PES capacity, low educated NEETs and diversified offers (AT, DK, DE, FI, IE, NL, SE).

Cluster B: Member States with intermediate NEET challenges, strong outreach efforts by the PES, relatively poor monitoring data quality, high NEET rates due to family responsibilities and strong focus on employment offers (CZ, EE, FR, HU, RO, UK).

Cluster C: Member States hit by the economic recession, with highest initial NEET rates, severe long-term unemployment, large support via EU funding, highest reform efforts and highest entry rates into apprenticeship offers (CY, EL, ES, IT, PT).

Cluster D: Member States characterised by relatively low initial NEET rates and short-term unemployed rather than inactive NEETs, some funding under YEI, strong outreach efforts through the PES and partnership approach, and diversified offers with a stronger focus on education offers (BE, MT, LT, LU, PL, SI).

Cluster E: Member States that joined the EU relatively recently, with 'transitional' STW regimes, high initial NEET rates, structural challenges and substantial EU funding, focus on employment offers, rather high reform efforts (BG, HR, LV, SK).

Evidently, these explicit labels for the clusters tend to simplify the other factors of heterogeneity across Member States that determine the typology. However, some conclusions can be drawn regarding the fit of underlying challenges to be addressed with the policy response observed. In particular, it appears that countries in Cluster A, C and D reflected the challenges observed in the design and implementation of the YG to a higher degree compared to cluster B and E, as policies implemented – for example regarding outreach efforts – seem to better match key factors of heterogeneity in the NEET population.

In a final step, the study investigates the YG models resulting from the typology and basic performance indicators. Cluster A performs well in terms of the NEET "coverage" rate but less well regarding the reduction in NEET and unemployment rates over time. Clusters B and D perform relatively similar across all YG outcome measures. Cluster C shows the largest share of youth in the preparatory phase beyond the envisaged four months but also the largest median decline in NEET rates. Cluster E has the lowest share of positive and timely exits but the largest decline in youth unemployment out of all clusters.

Whereas, therefore, the evidence is not fully conclusive, partly due to the number and complex inter-relation of the aspects in which clusters differ, the report's findings nonetheless clearly indicate that not only initial conditions but also the way Member States implement the YG has affected its success.

1. The Youth Guarantee: background and outline of the study

An essential aim of the policies that promote economic growth and social equity is to ensure that young people are adequately educated, that they enter the labour market smoothly, and that they then continue successfully through a lifetime in employment through till retirement. Young people face a wide range of structural challenges – frequently perceived as increasingly complex – regarding their school-to-work (STW) transition and their long-term labour market prospects (Quintini et al, 2007).

The economic recession of the late 2000s and its aftermath exacerbated these challenges, while the on-going Fourth Industrial Revolution, comprising innovations in digitalisation, artificial intelligence and robotics, is constantly generating new and potentially fundamental challenges. In general, these developments have resulted in the following patterns: (i) a dramatic rise of youth unemployment in most countries during the recession, together with relatively low employment rates; (ii) lengthier, complex, unstable, and non-linear STW transitions; (iii) a deterioration in the quality of youth employment combined with greater precariousness; (iv) the patchy availability of quality work experience, which increasingly plays a crucial role in STW transitions; (v) increased inactivity, discouragement and labour market detachment; and (vi) greater labour market vulnerability for disadvantaged youth such as the low-skilled, migrants and young people with a disability, and, more generally, young people not in employment, education or training (NEETs).

While the wider macro-economic situation, including business cycle fluctuations together with the recession-related economic deterioration of the late 2000s and the subsequent 'job-poor' recovery accounts for these developments, they are also rooted in persistent structural deficiencies. These include imperfectly performing education and training systems with poor outcomes and ensuing skills mismatches and segmented labour markets (resulting in hollowing-out and skill polarisation). Sometimes poor PES (Public Employment Service) resources prevent the provision of youth-related tailored services in general, and in particular concentrating appropriate resources on vulnerable, hard-to-reach young people, including certain sub-groups of NEETs (European Commission, 2017a). Yet, unsatisfactory early labour market experience and lengthy, unstable STW transitions can lead to long-term 'scarring' effects on young people in terms of reduced lifetime earnings, a higher probability of subsequent periods of unemployment, a greater likelihood of precarious employment, and poorer health and well-being (Gregg and Tominey, 2005; Scarpetta et al, 2010; European Commission, 2017a).

The remainder of this section describes the youth unemployment situation in the European Union (EU) and the challenges it poses for youth generally. It also introduces the Youth Guarantee (YG) and it summarises the joint response to these challenges undertaken in the EU. An explanation of the objectives and content of the present report as well as the project in general concludes this section.

1.1. The youth employment challenge in the European Union

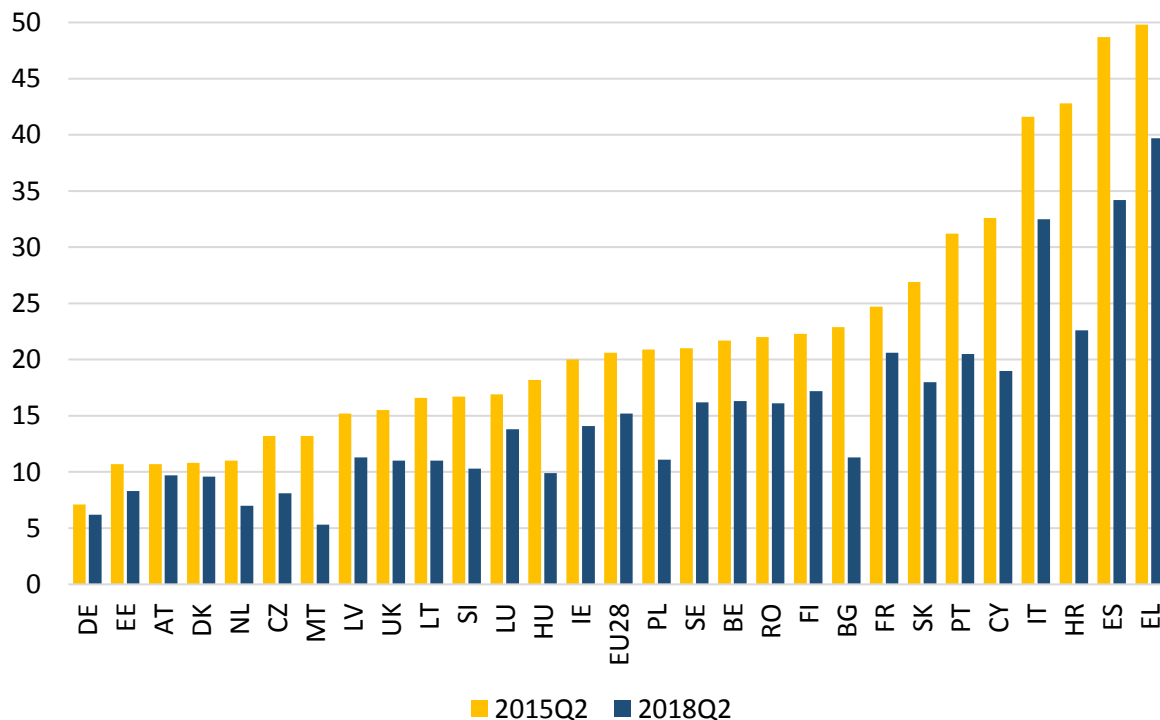
In the second quarter of 2018, as many as approximately 3.4 million, out of a total of about 57 million young people in the 15-24 age group, were unemployed in the EU (latest available data from Eurostat). Whereas this constitutes a substantial decline from the peak of 5.7 million in January 2013, the numbers still remain high: the average youth unemployment rate – i.e. the percentage of unemployment in the 15-24 age group compared to the total labour force in that age group – stood at 16.8% in 2017 in the EU 28,

and the NEET rate (the share of young people neither in employment nor in education or training) was 10.9%. If young people up to 29 years of age are included, the average rate of youth unemployment in the EU 28 was 12.7%, while the NEET rate reached 13.4% (amounting to 17.7% specifically within the 25-29 age bracket).

Figures 1 and 2 show the numbers for the 15-24 age group and illustrate the policy challenge of the youth unemployment rate (Figure 1) and the NEET rate (Figure 2). They also show the substantial variation across EU countries: as Figure 1 shows, the youth unemployment rate (Q2 2018) is below 10% in Austria, Germany, Estonia, Denmark, the Netherlands, the Czech Republic and Hungary. In the majority of EU countries, however, it ranges from 10% to 20%, while it is above 30% and up to almost 40% in Italy, Spain, and Greece. Looking specifically at the most recent development by comparing it with the Q2 2015 youth unemployment rate, however, the figure also shows a general downward trend across all EU Member States, which is quite pronounced in some countries (Bulgaria, Croatia, Malta and Hungary, for example).

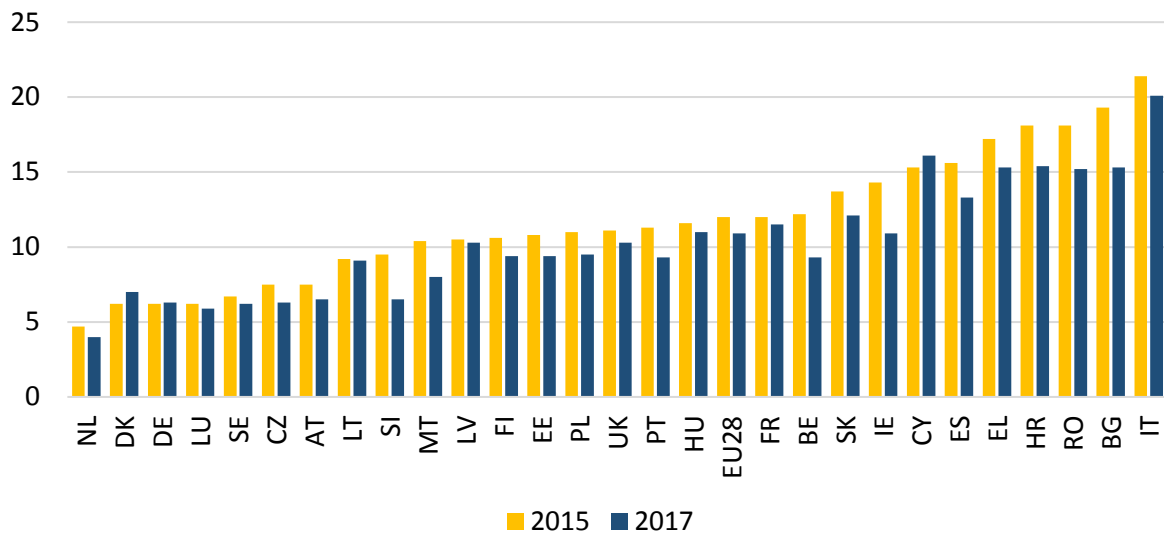
Looking at the NEET rates in Figure 2, this downward trend in the most recent development comparing 2015 and 2017 is also clearly visible. Again, there is notable variation across Member States. On average, EU countries have a NEET rate of around 10.9% as of 2017 and Ireland and Poland have NEET rates close to the EU average. While the Netherlands is the only EU country with a rate below 5%, Croatia, Romania, Bulgaria, and Italy have the highest NEET rates, with the rate reaching almost 20% in Italy.

Figure 1. Youth unemployment rates (15-24 years old) in EU Member States, 2015 compared to 2018



Source: Authors' illustration based on latest available Eurostat data: youth unemployment rate as percentage of the active population, quarterly average. Countries are ordered by Q2 2015 rates. Data is seasonally adjusted. For Italy and Cyprus, the Q1 2018 rates are reported (latest available).

Figure 2. Rates of young people (15-24 years old) not in employment, education or training (NEET) in EU Member States, 2015, 2017



Source: Authors' illustration based on latest available Eurostat data, annual averages. Countries are in order of the 2015 rates.

In addition to these aggregate statistics, the difficulties for youth in the STW transition can be related to several structural challenges, or market failures. In particular, these concern: (a) Labour market segmentation – a labour market pattern in which young people are over-represented in temporary, part-time, non-permanent work; (b) (under-) performance of the education and training system – the low achievement of a substantial section of youth in basic and 'transversal' (transferable) skills; (c) the limited availability of 'quality' work experience; and (d) insufficient capacity of the Public Employment Service (PES) to ensure effective provision of tailored services and support for young people (see European Commission, 2017a).

1.2. The Youth Guarantee

The significant challenges that young people face in relation to fast, smooth, and effective STW transitions were exacerbated during and after the recession. Since then they have also acted as a catalyst for policy change in many Member States. Accordingly, a YG was introduced following the 2013 Council Recommendation (Council of the European Union, 2013). Together with associated structural reforms of vocational education and training (VET) and activation policies that are implemented across the EU, its aim is to address these challenges. More specifically, following a proposal from the European Commission, all Member States adhered to the establishment of the YG, committing themselves to giving every young person a good-quality offer of employment, continuing education, or an apprenticeship or a traineeship within a period of four months of becoming unemployed or leaving formal education (Council of the European Union, 2013). The idea of YG style policies originated in the Nordic countries, where such initiatives were first implemented in Sweden in 1984, and then elsewhere in the 1990s (Norway in 1993, Denmark and Finland in 1996, see, for example, Escudero and López Moureló, 2017).

In a Communication published three years after the launch of the YG by the European Commission (2016a), it was observed that the YG had become a reality across the EU. Starting from January 2014, 14 million young people had already registered in YG schemes by 2016. Around nine million young people had taken up an offer, the majority

of which were offers of employment; almost two thirds of young people who left the YG in 2015 took up an offer of employment, education, traineeship or apprenticeship. While the Commission Communication also concluded that the YG has significantly facilitated structural reforms and innovation in policy design across Member States, it also asserted that, nonetheless, youth unemployment remained unacceptably high and many challenges still need to be addressed by Member States.

1.3. Outline of the project and the present report

The main objective of this project is to undertake an up-to-date review of the current approaches and implementation of the YG, especially in view of new challenges for youth in the changing world of work, thereby providing the basis for a future YG model that is both robust and dynamic.

This report constitutes the *first phase* of the research project. In the first phase, a comprehensive desk review of existing documents and data was undertaken, together with the construction of a database of indicators for a cluster analysis, as well as supplementary country case studies. This approach is explained and implemented throughout this report. Aspects that guide the analysis are: 1) the degree to which EU financing helped to implement the YG, 2) whether the YG became a sustainable part of national policy making, 3) the main challenges faced by young people in their transition into the labour market, 4) the heterogeneity of the NEET population, 5) the design and implementation features of the YG, and 6) the role of apprenticeships in the YG. Based on these insights, a typology of YG models is developed and the correlation of these types is assessed regarding measures of performance.

The *second phase* of the research project will address the emerging challenges for young people's transition into the world of work, drawing extensively on consultation with stakeholders both through an online survey and, more importantly, through a stakeholder seminar held in Brussels on Oct 1, 2018, during which experiences with the YG were exchanged and future challenges identified and discussed. The results of this second phase will be published in a separate report.² Together, these two reports should inform reflection on further developments of the YG.

The report at hand is structured as follows. Section 2 has two parts; the first part identifies the main characteristics of YG implementation in context, while the second part defines empirical indicators for these characteristics and their sub-dimensions. In section 3, these indicators are used for constructing a typology of YG models, also showing how the different types of models differ regarding performance indicators. Section 4 presents the conclusions of the analysis.

² European Commission (forthcoming), *The Youth Guarantee in light of changes in the world of work: Emerging challenges related to young people's transition in the labour market*.

2. Implementation features of the YG and related indicators

This section provides a comprehensive overview of the main features that characterise YG implementation and assess the main features that are likely to determine its success in Member States. It has two steps: first, section 2.1 gives an overview of the relevant dimensions of YG implementation along the six guiding aspects outlined above. Based on this characterisation, section 2.2 discusses the ways in which each of these aspects can be represented by a set of empirical indicators and which will be used in chapter 3 for a YG typology. The list of indicators for each of the six aspects comprise key contextual characteristics for each Member State as well as implementation-related features such as partnerships created as a result of YG implementation, or the types of interventions used. In particular, indicators that characterise Member States at the outset of the YG (measured in 2012 or 2013) as well as the way the YG was implemented (mostly measured up until 2016) inform the typology. Indicators of YG performance such as, for example, the estimated proportion of the NEET population reached by the YG (the so-called YG “coverage rate”) are considered outcomes of the way Member States implemented the YG.

The presentation and discussion of intervention features and corresponding empirical indicators in section 2 is complemented by selected information from five brief country case studies. The case studies are a supplementary element in the review exercise that feeds into this chapter, and they are meant to illustrate the intervention features discussed throughout the chapter in more detail for selected countries. Based on an ‘ex ante assessment’ of a set of qualitative and quantitative country indicators, the following five countries were selected for case studies: Austria, Denmark, Ireland, Italy, and Latvia. The countries were selected, firstly, to cover (to the extent that is possible) the existing types of STW regimes, and secondly to reflect the heterogeneity of the NEET population. NEET implementation is characterised by high and low NEET and youth unemployment rates, high and low YG coverage and the financial resources put into its implementation.³

2.1. Features of Youth Guarantee implementation

2.1.1. Financial resources for implementing the Youth Guarantee

The YG is not a funding programme in itself. It is instead a political commitment supported, among other ways, by financial contributions from the EU and national budgets, as well as contributions from the private and non-profit sectors. This section on the first YG implementation aspect, financial resources, briefly outlines the relevance of these different sources. Specific focus will be given to the Youth Employment Initiative (YEI) and the European Social Fund (ESF) as the main EU sources to financially underpin the implementation of the YG.

Youth Employment Initiative: The YEI was established during three informal summits of EU Heads of State in 2013-14, and then given €3.2 billion for the 2014-15 period. Eligibility for measures funded through the YEI is confined to young people aged 16-25⁴ who

³ It is important to emphasise the ‘ex-ante’ nature of case study selection: they were chosen based on a preliminary set of indicators at the outset of the study, whereas the full in-depth identification and discussion of indicators – as presented in this chapter – and their analysis in Chapter 3 becomes a key element of the study itself.

⁴ The upper age band is 29 in some Member States.

are not in employment, education or training ('NEETs'). Funding from the YEI was only allocated to regions in those Member States where youth unemployment was higher than 25% in 2012.⁵ Since national allocations are based on the number of unemployed young people in 2012 in these regions, YEI funds were allocated to a varying extent to each Member State based on their (regional) unemployment rates (European Commission, 2016a). Spain was the largest recipient of the initial YEI specific allocation receiving €943.5 million, and Slovenia the smallest receiving €9.2 million. In 2015, in view of the immensity of the youth-employment challenge, the European Commission took steps to ensure a quick mobilisation of its funds.⁶ Specifically, a higher pre-financing rate for the €3.2 billion YEI specific allocation in 2015 than for other ESF allocations (30% instead of the original 1-1.5% of the specific allocation for other ESF funds) was introduced.

This led to an amount of around €1 billion in additional pre-financing to Member States in 2015 (European Commission, 2016a). In the summer of 2017, during the mid-term review of the EU's seven-year budget, the YEI was extended until 2020 and it received an additional financial allocation of €1.2 billion. In addition, it was targeted at regions where youth unemployment still exceeded 25% in 2016 (Andor and Veselý, 2018). According to the Commission's report in October 2016, the YEI is seen by Member States as a key mechanism through which to operationalise national Youth Guarantee schemes. "In some cases, the YEI is being used to support most or all measures planned under the YG schemes, while in others it is one funding source amongst others. Countries where large shares of YG funding comes from the YEI include Lithuania – where 2/3 of all YG actions are supported by the YEI, Poland – where 3/4 of all YG actions YEI funded, and Spain – where 80% of all YG actions are funded through the YEI." (European Commission, 2016b, p.89).

YEI funds were provided from the EU budget as a top-up to the already available ESF funds for 2014-2020, to provide additional support for programmes with a specific focus on NEETs (European Court of Auditors, 2017). However, the funding allocated to each Member State under the YEI has to be matched by an equal amount from the respective Member State allocations in the ESF 2014-20 budget. This holds for the initial allocation in 2013 as well as the additional funds in 2017. Hence, the total budget of the YEI (for all eligible EU Member States) now totals €8.8 billion for the period 2014-2020.

European Social Fund: In addition to ESF funds that were directly used to match the YEI contributions (see above), some Member States also utilised additional funds from the ESF for further employment-related programmes⁷ directly or indirectly benefiting youth, but with no specific focus on NEETs. In contrast to YEI funds, which are intended to directly support NEETs, ESF funds may also be used to support structural reforms. In total, Andor and Veselý (2018) estimate that approximately €14-15 billion from the EU budget over the period 2014-20 financed the implementation of the YG through the YEI and ESF

⁵ The exact methodology for allocating Youth Employment Initiative funds among Member States is set out in Annexe VIII to the 'Common Provisions Regulation', i.e. Regulation (EU) No 1303/2013 of 17 December 2013, OJ L 347, 20.12.2013, p. 320-469.

⁶ An additional reason was that many Member States "raised the issue that they don't have the national budget necessary to pay advance funding to projects working with young people" (source: http://europa.eu/rapid/press-release_MEMO-15-5020_en.htm).

⁷ The ESF is Europe's main instrument for supporting jobs, helping people get better jobs and ensuring fairer job opportunities for all EU citizens (European Parliament, 2018).

funds.⁸ This is a significant share of the total ESF funding of €86.4 billion available to MS for the 2014-2020 period (including the YEI).

Country case study: Austria

Young people in Austria were already benefiting from special attention before the introduction of the YG. Several measures were set up to facilitate the transition from education to the labour market, in particular through a well-established apprenticeship system. Reducing the age for early school-leaving existed before the 2013 Council Recommendation. The long-standing existence of policy measures for young people is reflected in Austria's relatively successful performance as regards youth employment and STW transition. The labour market situation of young people in Austria is better than the EU average and it continues to improve. The rate of youth unemployment (15-24 years old) went down from 10.6% in 2015 to 9.8% in 2017, which is significantly below the EU average (16.8%). This good performance is also reflected in the number of NEETs. The NEET rate in Austria was at 6.5% in 2017, well below the EU average (10.9%).

In addition, evidence shows that Austria is performing better than the rest of the EU as regards its YG implementation (European Commission, 2018a). It is acknowledged that Austria has established a comprehensive Youth Guarantee based on effective partnerships, targeted policy measures and a robust monitoring system with interconnected administrative data (European Commission, 2016a). The country's performance is particularly outstanding in two dimensions: the NEET coverage and the delivery of a good quality offer.

Data for 2016 shows that an estimated 82.9% of NEETs in Austria are reached by the YG, which is the highest figure amongst Member States and almost double the EU average (42.5%)⁹. In addition, this "coverage indicator" has been at consistently high levels since the start of the YG. A second, more suggestive but somewhat less reliable way of looking at the performance of a YG scheme is trying to estimate the rate of recycling, i.e. the percentage of NEETS entering the YG with previous YG experience.¹⁰ This recycling rate is rather high in Austria (73.9% compared to 34.1% for EU 28), suggesting that employment services have little difficulty in 'staying in touch' with young people who already had a YG experience.

The Austrian YG provides a wide range of offers (European Commission, 2016d). It comprises apprenticeship, traineeship, education and employment offers that are targeted specifically at young people, such as, for example, supra-company apprenticeships or production schools. Additionally, the general education, training, apprenticeship and employment offers are open to young people.

At the same time, it is to be noted that Austria still faces difficulties in integrating certain sub-groups into the labour market, in particular women, migrants and young peo-

⁸ This figure is slightly higher than the €12.7 billion stated by the Commission in its October 2016 report which YEI and the ESF are *directly* investing in "labour market integration measures for young people in the programming period 2014-2020" (European Commission, 2016a, p. 12).

⁹ These figures are based on the indicator "average annual stock of young people in the YG preparatory phase / NEET population (annual average)" included in the Indicator Framework for Monitoring the Youth Guarantee. This indicator combines administrative and survey data. Whilst this is not ideal, the indicator is useful to give an approximate indication of the proportion of NEETs registered in the YG scheme at any point during the year. Results should therefore be interpreted as an estimation, rather than a definitive measurement, of the extent to which YG schemes achieve the objective of reaching all young people that become, or are already, NEET.

¹⁰ The recycling rate is only experimental data and not officially part of the YG monitoring dataset.

ple with low skills (European Commission, 2018a). Ongoing efforts for these target groups need to be intensified as recent measures have not led to sufficient results yet.

Other EU sources: Several other EU budget lines support employment- and education-related programmes in Member States, including the European Regional Development Fund (ERDF), the ERASMUS programme as well as Horizon 2020 and the European Globalisation Adjustment Fund (EGF). For an analysis of their job-creation potential and their relation to the ESF/YEI, see European Parliament (2018). In addition, a range of smaller EU programmes finance employment-related measures for (young) people, such as the European Solidarity Corps or the EU Programme for Employment and Social Innovation (EaSI).¹¹

Three aspects deserve to be highlighted regarding differences across Member States in financing the implementation of YG activities:

First, as the 2017 European Court of Auditors report on “Youth unemployment – have EU policies made a difference?” highlights, the level of YEI/ESF funding available would only address a small proportion of the required amount for the full implementation of a YG. Member States therefore need to leverage significant additional resources from national budgets to achieve this goal. However, so far, there has been “no assessment of cost and available funding by Member States.” (European Court of Auditors, 2017)

Second, the extent to which the YEI/ESF funds simply financed youth-related schemes that already existed prior to the YG is unclear. They may be funded either by other EU schemes or Member State national budgets. The European Court of Auditors states that YEI/ESF should “not replace public or equivalent expenditure by the Member States” (ibid.). However, the Commission notes in its reply to the report that the YEI provisions do not deny to Member States finance for measures previously supported by the national budget or measures that require Member States to increase public spending regarding certain types of measures or target groups. At the same time, the European Court of Auditors analysis of seven Member States’ Operational Plans for the YEI/ESF showed that “[...] the majority of the measures which were to receive YEI financing already existed prior to the introduction of the Youth Guarantee [...]” (ibid., p. 54). In fact, even in 2011, the Youth Opportunities Initiative proposed by the European Commission (2011) allowed the governments of Member States to make increased use of the ESF for promoting youth employment (Tosun et al, 2017). The degree to which additional funds under the YEI/ESF actually presented additional funds for Member States may therefore vary greatly and there is, without doubt, also some variation in Member States as to whether this caused them to step up their efforts regarding youth employment.

Third, despite the frontloading of the YEI in 2017, take-up of the YEI developed slowly in its early phases of implementation (European Parliament, 2017b). According to Andor and Veselý (2018) two aspects delayed the implementation of the YG in the start from a financial perspective: firstly, it took Member States and the Commission time to design and review the ‘Operational Programmes’ (OPs) specifying how YEI and ESF money would be used. Most of the Operational Programmes were only approved in late 2014 or even in 2015. Secondly, several Member States had accumulated delays in absorbing EU structural funds for 2007-13. Hence, they focused their efforts on implementing these schemes in order not to lose these allocations (due to the so-called de-commitment

¹¹ For instance, one of the aims of the EaSI programme is to enhance mobility via the “Your first Eures job”. As these programmes are rather small in scale and not directly linked to the YG, the study does not provide a detailed overview (see European Parliamentary Research Service 2017).

rule). Only afterwards did they move on to use YEI funding. An assessment commissioned by the European Parliament concluded that most delays that limited the impact of the increased pre-financing were due to procedural rather than financial problems (European Parliament, 2017b).

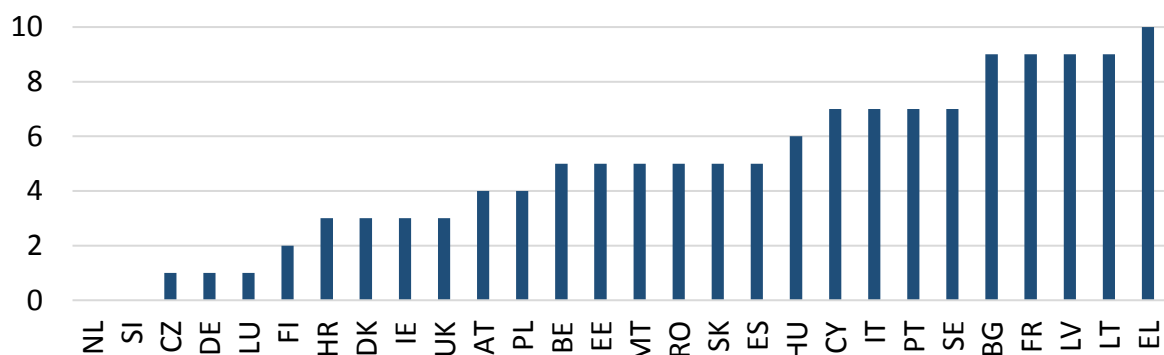
2.1.2. The Youth Guarantee as part of national policy-making

A variety of aspects may be used to determine the degree to which the YG has become a part of national policy making and, hence, whether the changes introduced by the YG are likely to be sustained over time. The following discussion focuses on three measurable factors related to the sustainability of YG-related policy changes. Firstly, whether the Council Recommendation has spurred on Member States to introduce youth-related labour-market reforms, rather than merely set up an additional offer of active labour market measures. Secondly, whether Member States have introduced monitoring and evaluation systems to assess the effectiveness of YG-related measures. Thirdly, to find the degree to which Member States have attempted to build up (lasting) partnerships between all relevant stakeholders (such as public and private employment services, government authorities, education and training institutions and so on).

The introduction of youth-related labour-market reforms: the first key factor reflects whether Member States have attempted to embed the main guidelines of the Council Recommendation in their national policies. In particular, whether Member States have used the political momentum created by the YG to introduce structural reforms to modernise their overall labour market policies in support of young people. Such reforms concern the functioning of the labour market (its institutional and regulatory framework) and are aimed at better matching supply with demand. The implementation of structural reforms can be considered a key determinant as to whether the YG can have a long-term, sustainable impact in Member States beyond the YEI and the ESF funding associated with the YG.

Information on the nature and intensity of youth-related active labour market policy reforms, provided in the LABREF database, indicates that EU Member States are implementing the Recommendation’s policy guidelines unevenly. Figure 3 displays the number of active labour market policy reforms between 2013 and 2016 across Member States. The figure indicates, for instance, that virtually all Member States implemented additional ALMP reforms for youth, and that several Member States – such as Bulgaria, France, Latvia, Lithuania and Greece – have a relatively broad scope of reforms.

Figure 3. Absolute number of youth-related active labour market reforms between 2013 and 2016



Note: This figure shows the absolute number of youth-related active labour market policy reforms in the EU Member States between 2013 and 2016. Identification of youth-related reforms is done via the indicator “Is the measure targeted at young people” in the LABREF database.

The introduction of monitoring and evaluation systems: the fifth principal element in the Council Recommendation on the YG, and the strict reporting guidelines, were aimed at fostering a culture of policy analysis. Despite the additional administrative burden associated with reporting activities, requiring Member States to obtain administrative data on in- and outflows from the YG as well as follow-up data, the creation of a monitoring and evaluation system is one of the effects that people in charge of implementing the YG at the country level have recognised as being positive.¹² In fact, many Member States did not have specialised monitoring systems allowing to track youth on the labour market and in education, and evaluate activation measures for youth before the Council Recommendation.

At the same time, the capacity of countries to monitor what happens to young people after leaving the YG, and the corresponding data quality, varies: in fact, a substantial share of Member States do not know about young people's reasons for exiting either the YG or the labour market, nor do they register the educational status of previous participants after they exited. This issue is most likely due to a pre-YG lack of policy evaluation culture, or a lack of capacity to collect data. An additional aspect to consider in this regard is whether Member States attempted to evaluate the effectiveness of specific measures under the YG using rigorous impact evaluations. The EU helps Member States conduct impact evaluations on interventions funded by the European Commission, namely the ESF and the YEI, for example, by setting up the Centre for Research on Impact Evaluation (CRIE) which provides scientific expertise and methodological support to Member States conducting an impact evaluation (see European Commission (2016b) for details). Escudero and Murelo (2017) provide an overview of various impact evaluations of pilot programmes that were set up within the context of the European YG. However, there does not so far seem to be a systematic account of ongoing or completed impact evaluations of YG instruments.

Partnership approach: Most Member States make a reference to the partnership approach in their YG Implementation Plan (YGIP). Table 1 shows the clear differences based on an assessment of ten selected Member States, conducted by Eurofound (2015). In addition to the differences within countries, the findings based on this sample of ten countries also indicate that cooperation with some stakeholders seems to be more widespread than it is with others. For instance, cooperation between ministries, particularly the ones dealing with employment and education policies, is rather well developed. In comparison, cooperation is less frequent with non-institutional stakeholders such as the third sector, notably NGOs, social partners and youth organisations. In 2016, the European Commission's three-year assessment came to the conclusion that "while many Member States have taken steps to support the involvement of a wide range of actors and established institutional frameworks for partnerships, the functioning of these partnerships remains a challenge due to problems of design, which affects their ability to deliver". (European Commission, 2016b, p.24)

In addition, previous studies (e.g. Dhéret and Roden, 2016) highlight the strong path-dependency in how countries or regions apply the partnership approach. While some countries have put new structures in place to monitor the progress of the YG implementation and coordinate the work of relevant stakeholders, other countries tend to have consolidated partnerships that existed *before* the YG was established.

¹² Information collected through the interviews organised in the context of the EPC Task Force on Youth Employment. The results of these interviews are further presented and developed in Dhéret and Roden (2016).

There also seems to be some discrepancy between the involvement of stakeholders in the design, implementation and monitoring of the YG. In some Member States, stakeholders in the third sector, particularly youth organisations, reported that they were only consulted in the design phase and never again (European Youth Forum, 2018).¹³ Recently, more positive evidence is provided by ETUC (2018), showing that the great majority of interviewed representatives of unions was at least 'somewhat satisfied' with their degree of participation in the YG.

Table 1. Overview of actors involved in implementing the YG in 10 Member States

	Ministry of Employment (or equivalent)	Ministry responsible for social benefits	Ministry/organisation responsible for ESF/YEI	Ministry of Education	Ministry responsible for youth work	Other ministry (justice, defence, interior, health, housing)	PES (either at national, regional or local level)	Youth organisation (representative)	Local youth organisation (implementation)	Social partners	Education sector
BE*	XX	XX	X	XX	X		XXX	X	X	XX	
BG	XXX	XX	XX	XX	XX		XX	XX	XX	XX	XX
EE	XX	X	XX	XXX	XXX	X	XX	XX	XX	X	X
EL	XXX		X	X			XX		X	X	
ES**	XXX	XXX (employment)	XX	XX		XX	XX	XX	X	XX	X
FR	XXX	XXX (employment)	XX (employment)	XX	XX	X	XX	X			
IE	XX	XXX	XX	XX	XX		XX	X	X		X
IT	XXX		XXX	XX	XX	XX	XX	X	X	XXX	X
PL	XX	X	XXX	X			XX		X		
UK	XX		XX (LEP)***	X	X		XX		X	X	

Source: Eurofound (2015a).

Note: XXX means authority/coordinator; XX means principal partner-stakeholders and X means associated partner/stakeholder; *A distinction needs to be made in Belgium between the federal and local authority/regional level: social benefits are (still) the responsibility of the federal government, while education and PES are the responsibility of the regions/local authorities; **Similar to Belgium, in Spain many responsibilities are delegated to the regional level; ***LEPs - Local Enterprise Partnerships.

¹³ Some more evidence from the European Youth Forum on involvement for a sub-set of countries can be found under <http://tools.youthforum.org/youth-guarantee/>.

2.1.3. Youth labour market challenges

The third key factor of YG implementation is its contribution to, and targeting of, the young people's labour market challenges. Given that the recession of the late 2000s (the 'Great Recession') and its aftermath exacerbated the difficulties that young people face in their STW transition and labour market career, this section presents a brief discussion of these challenges and how YG interventions have sought to address them.

Challenge 1 – Youth unemployment, long-term unemployment and inactivity: The Great Recession and its immediate effects on youth unemployment – highlighted in section 1 – also resulted in an increase in youth long-term unemployment, which, although gradually falling from its peak of 8% in 2013, has remained high (European Parliament, 2015; European Commission, 2017a). Long-term unemployment can result in well-documented lifelong consequences and 'scarring' effects on those young people who remain unemployed for some time (Eurofound, 2015b; Eurostat, 2015). In addition, a considerable proportion of the EU's youth remain economically inactive. Whereas a large share of them are in education or training, many are discouraged and have become detached from the labour market, or they have not entered it after leaving education.

The macroeconomic state of the economy also affects the level of demand for young people where employer absorption capacity in providing training places (such as apprenticeships) and jobs for young people may be limited (Eurofound, 2015a). In addition, the highly variable youth labour market performance across the EU before, during, and after the Great Recession has been attributed to many factors. These include differences in the institutional and structural set-up of Member States regarding the education and training systems, (initial) education and vocational training (IVET), labour market institutions and labour market policy (such as employment protection legislation - EPL) and active labour market policies (ALMPs), and social welfare systems (Eichhorst et al, 2013; O'Reilly et al, 2015, Pohl and Walther, 2005; Pohl and Walther, 2007).

The introduction of the YG – and its underlying philosophy of early intervention with a personalised approach – across the EU sought to address the issue of rising youth unemployment, including long-term unemployment and inactivity (Eurofound, 2015a; European Commission, 2016a). The YG approach precisely addresses these challenges: providing unemployed, inactive youth with a short-term activation and a perspective in employment or education.

In the five years since the launch of the YG, youth unemployment rates have improved considerably, as highlighted in section 1 (see also for example the European Commission, 2018g; Eurostat, 2018). Although this development is partially attributable to the recovery from the Great Recession, according to the European Commission this is also partially due to the YG, together with the effect of the Youth Employment Initiative (YEI) (European Commission, 2018g).

Challenge 2 – Labour market segmentation: A key challenge facing youth is labour market segmentation, often resulting in young people being over-represented in temporary or part-time forms employment, in particular involuntary part-time, casual, atypical or precarious work (European Commission, 2017a, 2017g and 2018i; Eurostat, 2015 and 2018). Although such non-standard forms of employment have increased for all age groups, the more recent cohorts of younger workers have been particularly adversely affected (European Commission, 2017g). Specifically, although in 1995 23% of younger workers in the then EU 15 were on non-standard contracts, by 2016 this proportion had increased to 32% for the same age group (European Commission, 2017g).

This trend is reflected across the EU 28 where, over the last decade, non-standard forms of employment among younger workers rose from 26% to 29%, with 3.5 million fewer

employees on permanent, full-time contracts and 1.2 million more on non-standard contracts (European Commission, 2017g). Moreover, younger workers in 2016 were still more than twice as likely to be working full-time on temporary contracts (12%) than workers in their prime and older workers (5%) (European Commission, 2017g).

In general, young people are more likely to find themselves as labour market 'outsiders', with little access to permanent contracts with high levels of employment protection and workers' rights, especially compared to their older counterparts (European Parliament, 2015; European Commission, 2017a, 2017g and 2018j). Since access to stable employment with positive career prospects matters, young people's successful transition into fully independent lives is one of the primary objectives of the YG (Council of the European Union, 2013; Eurofound, 2014).

The degree of 'dualism' of labour markets varies across Member States: recent analysis suggests that four in ten European young people are on temporary contracts, rising to over 60% in many Southern and Eastern European countries (European Court of Auditors, 2017). While temporary employment can either be a 'stepping stone' or a 'trap' in terms of STW transitions, recent data suggests that the former is rarely the case (European Commission, 2015, 2017a and 2017g): the average proportion of temporary workers transitioning into permanent employment fell from 28% in 2007 to 23% in 2013. This, however, masks major country variations ranging from 10% in France to, for example, 65% in Estonia (ibid.).

Predictably, when studying age groups, the probability of moving from temporary to permanent contracts over one year is lowest for young people aged 15-24 (European Commission, 2016g). However, it is worth noting that transition rates from temporary to permanent contracts among young people have recently either increased or remained stable in most Member States where data are available (European Commission, 2017g). In most Member States these rates are still lower than 20%, and in countries such as Poland and Greece temporary employment 'has almost no stepping-stone function' (European Commission, 2017g). Countries such as France and Spain, with highly segmented labour markets and high shares of (young) workers on fixed-term contracts, have been also characterised by low transition rates towards permanent employment (European Commission, 2017h; Eurofound, 2013a and 2013b).

Country case study: Ireland

Ireland was one of the EU countries most adversely affected by the Great Recession which resulted in high levels of youth unemployment. As a result, addressing youth unemployment, especially long-term unemployment, has been a key challenge (EEPO, 2015). The youth unemployment rate more than tripled from about 10% in 2008-09 to a peak of just over 33% in mid-2012 (DSP, 2014a). Likewise, the NEET rate for those aged 15-24 was 18% in 2014, although the picture is more nuanced, especially in relation to inactive NEETs (DSP, 2014a). Specifically, excluding students and the young unemployed, inactive NEETs account for a relatively small proportion (about 3%) of the youth population (DSP, 2014a; EEPO, 2015). Most tend to be lone parents/carers (60%) and people with a disability (20%) (DSP, 2014a; EEPO, 2015). Thanks to Ireland's universal means-tested unemployment benefit system for those aged over 18, the vast majority of young NEETs are registered with the benefits/employment service (EMCO, 2017).

Against this background, the Youth Guarantee (YG) has two target groups: (i) poorly qualified young people aged under 18 who are in turn provided with a quality second-chance educational/training pathway outside the school system (for example Youthreach), or are supported in re-entering the school system; and (ii) unemployed

young people aged 18-24, with a particular focus on long-term unemployed youth (EEPO, 2015; Stokes, 2016). To this end, the YG offer is quite comprehensive and comprises a number of programmes – some pre-existing (for example the JobBridge internship programme) and others such as the First Steps Youth Developmental Internship Programme (for the most disadvantaged young people) and JobsPlus Youth (an employer subsidy scheme) introduced as part of the YG (DSP, 2014a; Leigh-Doyle, 2014; Treadwell Shine, 2016).

The delivery of the Irish YG seems to be integrated within the overall policy approach towards youth employment, with most measures aimed at young jobseekers predating its introduction (DSP, 2016a). This embedding of the YG within the existing youth employment policy framework means there is a close alignment between the two. Indeed, Ireland's YG builds upon existing services and programmes, but it crucially entails earlier intervention for, and a tailored approach to, the young unemployed with a strong focus on enhancing processes/policies to help the young unemployed enter sustainable employment, receive appropriate training and/or gain relevant work experience (DSP, 2014a; Treadwell Shine, 2016; Doherty/DSP, 2018). YG-related partnership arrangements are also situated within the main policy making process which in turn means that the implementation of the YG is policy based as opposed to project based (ESF/YEI) (EMCO, 2017). As such, the YG and associated measures are likely to be sustained over time.

Ireland has made notable progress in implementing the YG with a substantial reduction in the number of unemployed youth. In general, there has been intensified engagement with young people while access to different programmes has been enhanced and partnerships strengthened (European Commission, 2018a). Evaluations of YG-related programmes such as the Tús and Job-Bridge work placement/internship programmes have shown positive outcomes (Leigh-Doyle, 2014; Indecon, 2016; Department of Education and Skills, 2016). The Irish YG seems to be quite successful in delivering sustainable outcomes which indicates that the offers provided are of good quality (European Commission, 2018a).

However, a number of challenges remain. For example, the uptake of key measures such as JobsPlus Youth and the First Steps Youth Development Internship has not been as extensive as it could in view of the youth cohort concerned, and there is also a lack of sufficient training places (DSP, 2016a; European Commission, 2017f). Employer engagement, particularly in the provision of employment opportunities for the most disadvantaged youth, also remains a challenge as does the timeliness of YG offers (European Commission, 2017f and 2018a; EMCO, 2017).

In principle, one response to the challenge of labour market segmentation would be structural reforms, such as, for example the reforms Spain implemented in the aftermath of the crisis. Given that the YG was implemented at the height of the recession, most Member States focused on a "work first" approach to give short-term relief to unemployed young people: specifically, the implementation of subsidised employment programmes, many specifically targeted at young people at risk, has been quite common across the EU and hiring incentives have featured prominently in many YG plans (European Commission, 2018h). Many of these programmes involve incentives such as wage subsidies aimed at encouraging employers to offer employment to young people.

In general, countries promoting employment offers under the YG use a form of employment subsidy which typically involves supplementing the individual labour costs of the person employed over a fixed period, whilst the majority of the labour costs remain covered by the employer (European Commission, 2018h - See Annex, Points 9 and 10).

These wage subsidies also play a crucial role in many countries (including Belgium, France, Estonia, Greece, the Netherlands, Poland, Spain, Sweden and Denmark) in facilitating the acquisition of work experience and/or entry in their first job by young people, and this especially helps young people from disadvantaged backgrounds (Eurofound, 2013b, 2016 and 2017; European Commission, 2018d and 2018h). In addition, the broader set of labour market reforms accompanying the YG (see, previous subsections) has contributed to addressing labour market dualism in many Member States.

Challenge 3 – Poor performance of education and training systems (including skills mismatches and the limited availability of quality work experience): Another key structural challenge is given by an unsatisfactory performance in the education and training systems, including VET; this means that young people do not have appropriate education when they graduate and when they enter the labour market, which in turn exacerbates skills mismatches and adversely affects their employability (for example Quintini et al, 2007; Quintini and Martin, 2014). Indeed, the mismatch between (youth) labour supply and demand seems to be a growing challenge: for instance, there is growing concern about graduate under-utilisation and the fact that that higher education graduates experience considerable and persistent occupational, vertical skills mismatch (23.4% in 2016) by working in jobs typically requiring a lower level qualification (European Commission, 2017c). However, it is also worth pointing out that higher education graduates have better employment rates (82.8%) than young people with upper secondary education qualifications (72.6%) (European Commission, 2017c).

Another major challenge in light of rapid and constant technological change relates to the need for effective skills anticipation against the largely unknown future evolution of work and work organisation. This is in turn is closely related to the need to ensure that the education and training systems across the EU respond accordingly by being 'agile' and by equipping young people with relevant skills, including 'dynamic' skills such as adaptability, resilience and career management skills. This concern was also reflected in the latest European Commission's report on Employment and Social Developments in Europe according to which "much will depend on whether or not education and training systems are agile enough to respond appropriately to fast-changing technological opportunities" (European Commission, 2018g).

In recent years, there has been a concerted effort to reform or strengthen education and training systems, including vocational education and training/apprenticeships and their role in STW transitions. Indeed, extensive VET reforms are currently being implemented in many EU countries (for example Croatia, Cyprus, Estonia, Greece, Finland, France, Ireland, Italy, Poland, Spain, Sweden and the United Kingdom) – instigated to some extent by the YG. These reforms seek to improve the labour market relevance, quality and attractiveness of VET together with an effort to develop a VET system, often along the lines of the German dual training system, which combines time spent at school with time spent in the workplace. In addition, many reforms of VET systems, often associated with the YG, have sought to create closer links with the labour market (European Commission, 2018c).

In addition, a range of other educational measures offered under the YG has aimed to bring young people with low levels of skills and qualifications back to education and training. These measures are summarised by the term 'continued education offers' (European Commission, 2018I). These continued education offers are set up to provide young people with the chance to re-enter the regular education and training system to move on to a higher-level qualification. Alternatively, ALMPs, bridging courses or second chance education programmes can also equip early school-leavers and low-skilled youth

with the skills and qualifications needed for an initial (and targeted sustainable) labour market integration.

2.1.4. The heterogeneity of the NEET population

The fourth key aspect of YG implementation assessed in this report concerns the way in which the YG has addressed the heterogeneity of the NEET population. Due to its diversity, the NEET population in the EU can be divided into sub-groups. According to Eurofound (2016), the NEET can be categorised, firstly by their activity status – those who are available to the labour market or educational opportunities are counted as active, while the rest is classified as inactive. The former group consists of short- and long-term unemployed individuals and those soon to return to education or employment, the latter group includes people with illness or disability, individuals with family responsibilities and 'discouraged' workers. Throughout this report, the phrase 'discouraged workers' refers to people who simply stopped searching for employment or education opportunities.

Data from the EU Labour Force Survey from 2013 (also used in Eurofound, 2016) provides an indication about the labour-market attachment of NEETs in Europe before the YG was implemented. Among the active NEETs, the largest proportion of 15-24-year-old NEETs were short-term unemployed (29.8%). Long-term unemployed youth made up about 22% of the NEET population while returnees into work or education accounted for roughly 8% of NEETs. Among those considered inactive, the largest share corresponds to individuals with family care responsibilities (15.4%). Individuals with illness or disability made up 8% of the NEET population. Discouraged workers accounted for almost 6% of NEETs, and 12.5% were NEETs for other reasons. Consequently, around 60% of the NEET population were neither in education, employment nor training for labour market related reasons (the unemployed, the discouraged workers and the returnees) and around 40% were NEETs for other reasons.

Furthermore, NEETs can be categorised by their educational attainment, as subgroups with lower education are at a much higher risk of being in a vulnerable position. This can be seen by the fact that less educated youth are overrepresented among the NEETs. As of 2014, 44% of NEETs aged 15-24 had completed an 'upper secondary' education, closely followed by 43% with a 'lower secondary' education and only 8% of NEETs had tertiary education or a degree (Eurofound, 2016).

These sub-groups have diverse needs and are therefore likely to benefit from different types of policy responses regarding interventions and they may require additional outreach efforts. Most importantly, those furthest away from the labour market are most likely to be in substantial need of outreach activities. One important factor here is their point of access to the YG. While other entry points exist, access is often governed by PES. In all EU countries except Malta, the PES plays a role in registering people for the YG. Among other determinants, the extent to which the PES are able to actually reach the NEET population also depends on their responsibilities for administering and paying (unemployment) benefits. According to European Commission (2017b), only three PES are responsible for administering other types of benefits aside from (mostly *insurance-based*) unemployment benefits (Lithuania, Luxemburg and Slovakia). These types of benefits tend to exclude youth due to their limited length of work experience, reducing the scope for outreach without further intervention. Indeed, the registration of NEETs with the PES was somewhat limited at the onset of the YG (Eurofound, 2016). However, many PES have launched substantial outreach activities to make up for this. EC (2017a) shows that roughly 46% of PES make use of new media for their outreach work, 39% provide mobile services and about 43% have specific outreach caseworkers. Moreover,

46% of PES have created a one-stop-shop type of framework to enhance their degree of outreach (e.g., this includes Belgium, Finland and the United Kingdom, *ibid.*).

Country case study: Italy

Italy is a country with a relatively rigid labour market despite the recent reforms aimed at increasing the degree of labour market flexibility. Moreover, the Italian education system endows youth with a relatively high level of general education, but with few work-related skills, which dramatically slows down their transition to a job (Pastore, 2018). Along with their relatively large number of early school-leavers, this helps explain their 34.7% youth unemployment rate in 2017.

The lack of previous experience with the YG framework and the dramatically low rate of job-finding – ranging from 11% to 18% in the 2010s – represented another obstacle to successfully implementing the YG. According to Pastore (2015), macro- and micro-economic obstacles should have been overcome to make the programme work at its best. Economic growth has been sluggish, at least from the early 1990s, which would normally have reduced the pace of job creation and forced young people into more education and training, rather than employment. Moreover, public and private employment services could count only on human resources which were scant in both quantitative and qualitative terms as they had a low share of university graduates (ANPAL, 2018).

The number of ANPAL staff has been reduced in recent years and as financial resources for paying for an increase in the number of staff are scarce, improvement has been sought by implementing important reforms, such as the 'legislative decree 150/2015' of the so-called Jobs Act package (ANPAL, 2018). This reform introduced 'quasi-markets' in the management of employment services: the NEETs are profiled by PES and then assigned a voucher for a different amount according to their 'need band'. NEETs can spend vouchers in the PES and/or with private (for profit or non-profit) employment agencies to buy the services they need. However, so far, the reform has not been fully implemented, partly due to the lack of financial resources (*ibid.*).

Further problems with the implementation of the YG has been due to the reallocation of competences in the PES from provinces to regions and the establishment of a national agency (ANPAL) to coordinate the work of regional entities, which detracted from the full implementation of the YG (ANPAL, 2018).

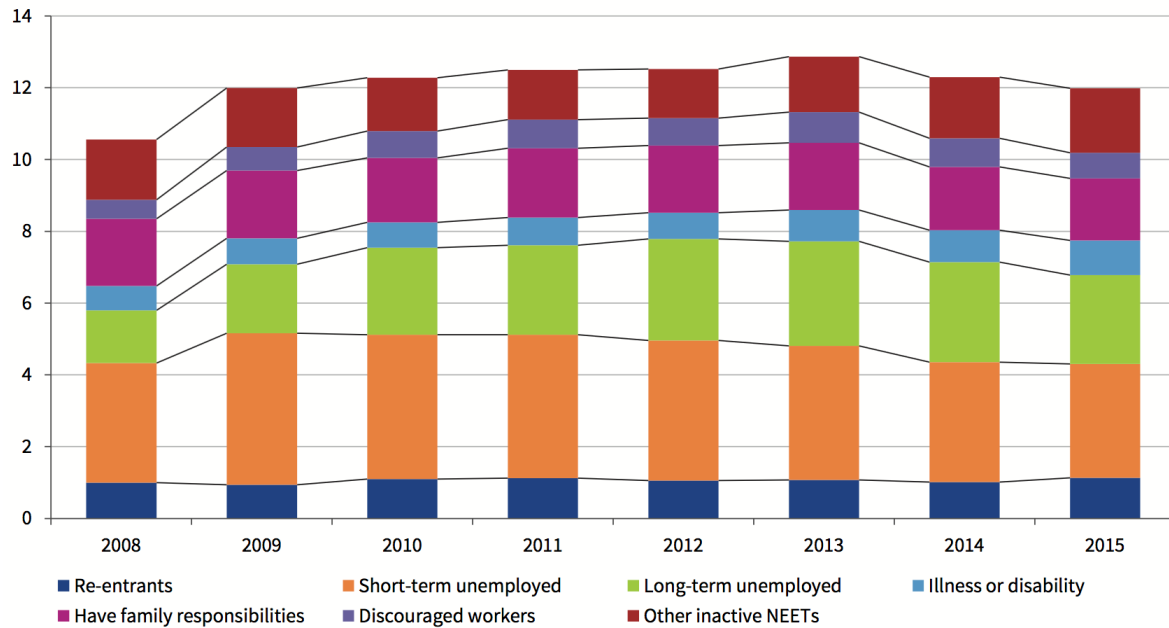
The Italian YG scheme has also managed to improve its monitoring system of the individuals involved, the activities done, and their level of absorption into the labour market when the programme is completed. The last monitoring report available shows that of about 1.5 million registered NEETs, 1.3 million had the prescribed requirements. About one million were actually profiled, of which about a half were given some completed form of assistance. About 60% underwent on-the-job training, 23% benefited from subsidised employment, 12.3% received off-the-job training, 2.3% received some form of placement services, 1.6% did voluntary service in the third sector and a small number received support for self-employment. About six months before completion of the programme, 47.9% of recipients were in work and 69.2% had experienced at least one employment spell (ANPAL, 2017).

A few recent evaluation studies provide a full assessment of regional programmes and show that on-the-job training is effective in confirming the importance of providing young people with work-related competences (for example, see Ghirelli et al, 2019).

Despite these efforts, monitoring data on the Youth Guarantee for 2016 shows that in the EU as a whole an estimated 38.5% of the NEET population were registered in YG schemes in the year 2016. Although some Member States are doing much better (cover-

age rates are higher than 50% in 12 Member States - in Belgium, Finland and Austria the corresponding rate is even above 70%). Moreover, the YG currently does not sufficiently cover inactive NEETs (European Youth Forum, 2018) as this problem is less severe in countries with minimum income support systems where less strict entry requirements are usually applied. This is the case in Ireland, for example (see European Court of Auditors, 2017). This under-coverage of inactive NEETs is reflected in Figure 4, which shows that the decline in NEET rates since the introduction of the YG is mostly due to reductions in long-term and short-term unemployment.

Figure 4. Composition of the EU NEET population (percentage of the population of young people)



Source: Eurofound (2017).

Thus, it seems that the YG so far has benefitted youth closer to the labour market, which may be partly reflect the high prevalence of employment offers within the YG framework (in 2016, around 67% of all the offers taken up within the four-month time limit set by the YG were employment offers). Low-skilled individuals 'discouraged' workers and individuals without work experience are likely to benefit more from offers that combine gaining job experience and building (job-specific) skills. However, as of 2016, these types of offer only make up a minority of all the offers taken up within the four-month time limit.

Furthermore, the 2013 Council Recommendation on the YG insufficiently addressed the needs of those among the youth that are NEETs for reasons other than labour market related factors as these individuals had other constraints keeping them from the labour market. Among this group are mainly individuals with family care responsibilities and youth with illnesses or disabilities. For individuals with family responsibilities, the European Quality of Life Survey shows that 11% of young fathers and 35% of young mothers are inactive. This is despite the fact that the majority of them would like to work under flexible work and with adequate care arrangements (European Youth Forum, 2017). Nonetheless, some Member States introduced additional reforms beyond the YG recommendations to decrease high school dropout or aimed at improving social and welfare policies.

2.1.5. Design and implementation features of the Youth Guarantee

The fifth key aspect of the YG concerns design and implementation-related factors affecting its capacity to address the main objectives – does it provide a broad set of young people with a quality offer within a short period of time? Specifically, the Council of the European Union (EU) recommended providing a quality offer to all young people under 25 within a four-month period of their becoming unemployed or having left the education system.

Substantial variation between Member States can be observed in the way the national YG was designed and implemented, previous experience implementing a YG-type of framework is also important. For example, Denmark and Sweden are among countries that had a relatively long history of this sort of framework even before the introduction of the YG. Furthermore, at the very fundamental level of design, some Member States opted for different target time-frames as well as different age cut offs for YG eligibility. Some countries chose a shorter time-frame than the four months envisaged by the Council of the European Union, others opted for a longer duration (European Commission, 2016a). Regarding the age range, a substantial number of Member States chose youth aged under 30 as a target rather than the suggested age of 25 as the cut off. This included, for example, Bulgaria, Denmark, Italy and Poland. Depending on the size of these cohorts, this may represent a considerably more ambitious approach, which - if it is not supported by sufficient financial and human resources - is more likely to fall short of expectations. Furthermore, some countries put specific emphasis on targeting the long-term unemployed youth (Escudero and Mourelo, 2017). Among others, this includes Hungary, Poland and the United Kingdom.

In order to support the target of reaching every NEET in a timely manner, some PES have also introduced YG-specific staff, hired additional caseworkers or at least maintained their staff level since the introduction of the YG (European Commission, 2017a). On the issue of the quality of offers, 17 PES formally defined their criteria for a quality offer or distributed national quality management guidelines regarding offers being made within the YG framework (5 countries).¹⁴ Many Member States have chosen an outcome-based approach for their definition of offer quality, meaning they define an offer as being of high quality when individuals have favourable education or employment outcomes after leaving one of the YG programmes (European Commission, 2016a). In addition, some PES also introduced youth-specific targets (European Commission, 2017a).

There is also cross-country variation in terms of the main YG providers. Almost all countries rely to some extent on their national PES for providing YG services, while some do so exclusively. This is the case for example in Austria, the Czech Republic and Greece. Most Member States however chose some combination of the PES and other institutions as their main providers (European Commission, 2016a). Aside from the institutions through which YG services can be obtained, online access to the programmes may be an important driver of success. In 18 EU countries, potential participants can register online for the YG at least in some regions of the country. This is not the case in, for example, Bulgaria, France or Luxembourg.

¹⁴ See European Commission, 2017a.

Country case study: Latvia

Young people in Latvia were very adversely affected by the 'Great Recession' of 2008/2009. In the years before the recession, youth unemployment had been relatively low, standing at 10.5% in mid-2008, but then it more than tripled to more than 35% within a two year period. In a parallel development, the NEET rate for 15-24 year old Latvians rose from 10.8% in 2008 to 17.8% in 2010. Both youth unemployment and the NEET rate effectively peaked in 2010 in Latvia, and since then they have steadily declined, reaching pre-crisis levels by 2015. One specific challenge of the Latvian labour market is the variation in employment outcomes by educational level, as the high-skilled face very low unemployment rates (clearly below the EU average), whereas unemployment among the low-skilled is much higher than EU average.

Following the Council Recommendation, the Latvian YG Implementation Plan was presented in December 2013 (updated in April 2014), and implementation started in 2014, targeting young people aged 15-29 not in employment, education or training (European Commission, 2018c). The Ministry of Welfare is in charge of establishing and managing the YG, while the Latvian PES (the 'State Employment Agency') and the State Education Development Agency (SEDA) are responsible for its implementation. Other main implementing actors include the Ministry of Science and Education, the local authorities (the municipalities), and youth organisations. The Latvian Youth Guarantee is fully funded by the Youth Employment Initiative (ibid.).

The immediate strengths of YG implementation in Latvia are the rapid formal adoption of the YG, the adaptability of existing institutions and structures (which also enabled the creation of new institutions such as a YG Advisory Board), and the emergence of partnership as a key component for implementing the YG. This active inclusion of a broad set of partnerships remains a particular strength of the Latvian YG implementation (EMCO, 2017).

The Latvian YG scheme exclusively provides employment and education offers so that apprenticeships and traineeships are not provided. The employment offers are mostly subsidised employment in the regular labour market, such as first work experience for labour market entrants and subsidised jobs for the disadvantaged. Young people receive fixed term contracts that range in duration from six months to two years, and there is also financial support for up to two years for young people wanting to become self-employed or to start a business.

The education system includes several vocational elements, typically between 480 and 960 hours, and up to 1.5 years in one specific programme. Additionally, the Latvian YG provides "youth workshops" as part of the preparatory phase which provide training in three different areas (up to three weeks each) to help young people with their career choices.

In 2016, just over a quarter (27.1% of the total entrants) of those entering the YG scheme were re-entrants, of which nearly half (12.7%) had previously taken up an offer. These re-entry rates are below the EU average, but the rates may be understated as data for participants applying via the SEDA data on previous experience are not available (European Commission, 2018a).

2.1.6. The role of the apprenticeship system in the Youth Guarantee

The sixth main aspect of YG implementation addressed in this study specifically concerns the role of apprenticeships: indeed, one of the greatest problems for young people's transition into the labour market is their lack of work-related competences, especially in the countries with sequential STW transition systems that focus on general education, rather than building 'all-round human capital' as in 'dual' STW transition systems where school and work are linked at the same time (Austria, Denmark and Germany). An apprenticeship is therefore one of the key elements of the dual system as it traditionally involves off-the-job, in-class education together with on-the-job training of different lengths.

According to comparative evidence provided by the European Commission (2013) based on the European Labour Force Survey, in most EU Member States the share of apprenticeships in any cohort of young people (15-29 years old) is between 1.5% and 5%, with the only exception being Germany, Austria and Denmark, where young people who undertake an apprenticeship amount to above 5%. All other EU countries are below 1.5%. The EU average share was 3.7%.

This general tendency is also partly reflected in the usage of apprenticeships in the context of the YG, as they correspond to important cultural and institutional factors within Member States.¹⁵ The monitoring data shows that in 2016 some of the countries with the highest share of apprenticeship offers within the YG programme have a dual STW system. Portugal is one major exception from this rule: this may be related to its general shortage of employment opportunities and therefore the tendency of apprenticeships to occupy a higher than average share among participants of the YG. Overall, however, only 3.4% of timely exits from the YG were the result of apprenticeship offers, a share not far away from the share in the overall population of young people mentioned above. For a large number of countries, the share was close to zero. It should be noted however, that due to data limitations, some countries may record entries into apprenticeship offers as entries into employment (European Commission, 2016b).

Apart from data-related issues, one reason why apprenticeship offers remain rather exceptional within the YG is that they require employers' commitment to providing training places and to designing curricula in cooperation with schools. This can be a big constraint in the development of apprenticeships, especially in sequential SWT systems. In 2013, the European Alliance for Apprenticeship (EAFA) was therefore launched to boost apprenticeships in the EU. The EAFA gave guidelines for the implementation of apprenticeships in all Member States and encouraged sharing experiences and good practices and provided strategic expert support from the European Centre for the Development of Vocational Training (CEDEFOP) and through the European Training Foundation. Within the context of the EAFA, all member countries signed a declaration of commitments on actions to spread the use of apprenticeships as the main port of entry to the labour market

¹⁵ Note that the Commission's definition of apprenticeships (European Commission, 2013) may differ from Member States' definitions. A recent Council Recommendation (Council of the European Union, 2018) intends to harmonise the definition by saying that apprenticeships are understood as formal vocational education and training schemes that a) combine learning in education or training institutions with substantial work-based learning in companies and other workplaces, b) lead to nationally recognised qualifications, c) are based on an agreement defining the rights and obligations of the apprentice, the employer and, where appropriate, the vocational education and training institution, and d) with the apprentice being paid or otherwise compensated for the work-based component. Despite this recommendation, varying national definitions still exist across Member States.

for young people.¹⁶ Moreover, in their declarations, each country committed itself to implement the dual principle in their STW transition.

Country case study: Denmark

Denmark is among those EU countries that even before the introduction of the YG in 2013 (European Commission, 2016a), already had a particularly well-functioning labour market and educational system to help NEETs. In fact, Denmark already had some experience of a YG-like framework for a relatively long period before it was proposed by the Council of the European Union. The situation for Denmark's youth was therefore more favourable than the EU average in 2012. The share of young people between 15 and 25 that were NEETs was only 6.6% - significantly below the proportion of NEETs in many other EU countries. Furthermore, the majority of those individuals that were classified as NEETs were relatively close to the labour market and were therefore easier to reach. For example, only 5.3% of Danish NEETs belonged to the group of long-term unemployed or discouraged workers (Eurofound, 2016).

Due to these circumstances, the case for additional reforms within the YG was limited. Therefore, along with reform efforts regarding active labour market policies concerning youth and the educational system¹⁷, the implementation of the YG mostly required the updating of existing policies. This is exemplified by a strong increase in ALMP spending from roughly 1.3% of GDP in 2012 to about 1.4% in 2015, despite declining rates of youth unemployment and therefore a decrease in ALMP expenditure in other countries over the same time period. Denmark chose a particularly ambitious implementation by focusing on youth under the age of 30 with a target window of less than four months so as to offer their NEET population a quality measure. In contrast to many other Member States, Denmark focuses on increasing the employability of NEETs via (continued) education measures, resulting in a share of apprenticeship take ups of over 50% relative to the total number of timely exits from the YG. This approach also matches the relatively large proportion of low and medium educated youth among the NEETs.

Two of the main pillars in the original 2014 Danish implementation plan were the "retention task force" and the "Bridge Building to Education" programmes. Both types of initiatives were well-founded in regional and inter-organisational partnerships (for example, people involved include job centres, municipalities, educational facilities, youth organisations and others). While the aim of the first programme was to decrease high school drop-out rates, the latter took place at a vocational school in close cooperation with the jobcentres and it focuses on helping youth to find their right path to success through making the transition to vocational education. This was done by assigning mentors to the NEET and giving them access to basic literacy and numeracy courses if they needed them, as well as further professional courses and traineeships. The evaluation of the "Bridge Building to Education" initiative yielded positive effects for youngsters participating in the intervention compared to the control group (with a similar profile) which did not participate in the intervention. As a result, two additional initiatives were set up. Firstly, funds were made available to support the further implementation of "Bridge Building to Education" initiatives. Secondly, "Job-Bridge to Education", a randomised controlled trial building on the core elements of "Bridge Building to Education" and targeting the most vulnerable youth under 30 years without an education was also set up.

¹⁶ Declarations of national commitment are downloadable from the EAFA website: <http://ec.europa.eu/apprenticeships-alliance>.

¹⁷ For more information, see <https://uvm.dk/reform-af-de-forberedende-tilbud/forberedende-grunduddannelse/opbygning-og-maalgruppe>.

The project is set to end in mid-2020 where it will be followed by an evaluation of the results.

The Danish YG has also managed to set up a high-quality monitoring system with only relatively few cases of missing information on YG participants' exit destinations (European Commission 2018a). Together with the relatively large share of NEETs who are registered with the PES and the development of "youth guidance centres" to reach out to those who are not, the Danish YG model is able to cover a substantial portion of NEETs. For instance, in 2016 the YG coverage rate reached almost 60% of the NEET population compared to the EU YG scheme average of 42.5%. Thus, despite more favourable initial conditions in Denmark, the YG helped put a focus on the most vulnerable youth and spur on a further integration of policies into national policymaking, for example through additional reforms aimed at improving active labour market policies for young people. Youth unemployment rates are currently trending downwards even further in Denmark. However, there remain some issues especially with regard to the integration of migrants, given that youth unemployment is a much more pervasive issue among them compared to native Danes (European Commission 2018a).

2.2. Empirical indicators of Youth Guarantee features

Section 2.1 has presented the key aspects that reflect how Member States implemented the Youth Guarantee following the Recommendation. In order to prepare the systematic analysis of the YG in section 3, which develops a YG typology, it is necessary to build empirical indicators for each of these key aspects. That is to say that this section discusses how information on each of these aspects can be measured and expressed in data.¹⁸ These empirical indicators are therefore grouped into the corresponding six sets:

1. Financial resources for implementing the Youth Guarantee
2. The Youth Guarantee as part of national policy-making
3. Youth labour market challenges
4. The heterogeneity of the NEET population
5. Design and implementation features of the Youth Guarantee
6. The role of the apprenticeship system in the Youth Guarantee

2.2.1. Indicator set 1: Financial resources for implementing the Youth Guarantee

The set of indicators below represents the level and composition of financial resources that Member States employed to support the Youth Guarantee's implementation:

- i. The size of ESF/YEI transfers to match the respective NEET challenge is measured by the ratio of initial YEI allocations as well as the YEI+ESF matching funds EU eligible cost, both relative to Member States' GDP in 2012. In addition, a categori-

¹⁸ For each group of contextual and implementation features of the Youth Guarantee discussed in Section 2.1, an overview of potential quantitative or qualitative indicators was established which could represent these constructs. Through a desk research of the available literature and online databases, the availability of the respective indicators at the Member State level was assessed for a sufficiently large set of countries. Unfortunately, for a subset of potential indicators it was not possible to retrieve sufficient and/or adequate information for a large enough sample of Member States. In some cases where several potential indicators were available to represent the same dimension or construct, the available indicators that best represent the specific feature were identified, while also taking data quality into account. In some cases, single, combined indicators were constructed to reduce the 'dimensionality' of the database underlying the cluster analysis in section 3. See appendix A for more details on the exact indicators used and their source.

cal variable for the estimated yearly costs relative to GDP for offering interventions to all NEETs is included, derived from Eurofound (2015a). The comparison of both allows judgement of the importance of EU transfers in financing the YG.

- ii. The degree to which Member States allocated additional funding from the ESF to fund measures related to youth employment is measured in data about “Other ESF EU eligible costs” (European Commission, 2018k).
- iii. To proxy whether Member States dedicated additional funding from national budgets to finance YG-related measures, the evolution of overall active labour market spending from 2012 to 2015 is used (Eurostat, Imp_expsumm)¹⁹;
- iv. Finally, the degree to which Member States were able to absorb the additional funding from the YEI in a timely manner is measured by the share of EU eligible costs among YEI+ESF funds that were actually declared YEI+ESF funds, based on data from European Commission (2018k).

2.2.2. Indicator set 2: The Youth Guarantee as part of national policy-making

The second set of indicators reflects the degree to which Member States made efforts to introduce elements of the YG into national policy making and started partnerships.

Regarding reform efforts, the following indicators are included:

- i. The degree to which the YG spurred wider, longer-term reforms in Member States is quantified by the total number of youth-related active labour market policy reforms between 2013-2016, based on LABREF information (the European Commission’s labour database).²⁰
- ii. In addition, the degree to which Member States were committed to the policy change is approximated by the number of areas in which additional measures were taken in the context of YG beyond the scope of the Recommendation (based on European Commission, 2016c).²¹
- iii. Finally, the degree to which Member States were able to set up an effective YG monitoring and follow-up system is taken into account as an indication of whether they were committed to delivering the YG. This means including 2016 data for the proportion of YG exits with unknown destinations and the proportion of unknown situations in the six-month follow-up data (European Commission, 2018a).

The degree of partnerships built in each Member State is measured using the following indicators:

- iv. The degree to which partnerships were an element of the initial YG design is included using the Member States’ self-reported involvement of social partners and

¹⁹ At the time of writing this report, more recent data was only available for relatively small subset of EU countries.

²⁰ The authors refrain from using 2017 data on labour market reforms from the LABREF database, as the objective is to measure the degree to which the YG was a driver of reforms in Member States. That is, this link becomes weaker over time such that the added value of more recent data for the analysis is questionable.

²¹ Due to their high correlation with LABREF’s own variations, indicators of receipt and implementation of country-specific recommendation between 2013-2017 and the qualitative classification by the Commission for the extent to which YG has acted as a driver of reform (European Commission 2016a) are not included in the set of indicators used.

youth organisations in the design, implementation and monitoring of the YG (based on European Commission, 2016c).²²

- v. Furthermore, the involvement of partners is approximated using the number of areas where the PES is declared to have formed partnerships (based on European Commission, 2017a).²³ In addition, indicators are included for national PES reported as having involved youth organisations and young people in the design of YG services (based on European Commission, 2017a).

2.2.3. Indicator set 3: Youth labour market challenges

To reflect how the challenges faced by young people in their transition from STW differ across Member States the following empirical indicators are considered:

- i. A set of indicators that reflect the significance of the youth unemployment challenge at the time when the YG was designed and rolled out. These include the ratio of unemployment rates for youth (age 15-24) and adults (age 25-74); the share of people aged 15-24 of the total population (age 15-74); and the NEET rate among youth aged 15-29 to obtain a measure of the size of the NEET challenge, also for Member States that target individuals up to 29 years of age (Eurostat: *lfsa_pgaed*, *une_rt_a*, *edat_lfse_14*; all indicators were measured in 2012).
- ii. To measure the initial degree of labour market segmentation and the quality of entry-level jobs available to youth in each Member State: the absolute difference in the share of youth (15-24) to adults (25-54) in terms of the number on temporary employment contracts in 2012 (Eurostat: *lfsi_pt_a*).
- iii. To address Member States' response to these conditions, several indicators are included on the degree to which employment offers were favoured, possibly reflecting a "work-first" approach: specifically, the number of offers of employment relative to the total number of all types of offers that are typically made to young people registered in YG schemes (based on European Commission 2018b). In addition, this includes a measure for the employment intensity of timely exits in 2016 (the share of all timely exits that were employment offers, based on European Commission 2018b).
- iv. Lastly, two indicators approximate the performance of education and training systems from which youth enter into the labour market, and the potential severity of the skills mismatch: first, the share of early school-leavers from education and training among the youth population (age 18-24) in 2012 (Eurostat: *edat_lfse_14*); and second, the share of NEETs with low and medium educational attainment in 2012. To approximate the YG implementation with respect to skills mismatches, the number of offers of education relative to the total number of all types of offers that are typically made to young people registered in YG schemes is used (based on European Commission 2018b). In addition, a measure is included for the education intensity of timely exits in 2016, i.e. the share of all timely exits that were education offers (based on European Commission 2018b).

²² An alternative source for partnership information is provided by ETUC (2018). Their data is – in contrast to the data employed – not self-reported by the Member States. However, the ETUC (2018) report contains substantial missing information and hence, was not used.

²³ Namely, PES partnerships aimed at (i) ensuring that young people have full information and support available, (ii) increasing employment, apprenticeship and traineeship opportunities, and (iii) supporting transitions from unemployment, inactivity or education into work.

2.2.4. Indicator set 4: The heterogeneity of the NEET population

The next set of indicators aims to reflect the diversity of the NEET population. While some indicators have already been introduced in the indicators above (for example NEET rates by educational attainment), this additionally integrates the following:

- i. The composition of NEETs as measured by the share of NEETs that are short-term or long-term unemployed, individuals about to re-enter education or employment, discouraged NEETs, youth with illnesses or disabilities, and the share of NEETs with family responsibilities. This gives an indication of the NEETs' activity status, the potential reasons for their NEET status and their degree of closeness to the labour market (Eurofound 2016; all indicators measured in 2013).²⁴
- ii. Indicators describing the links between the PES for the YG. This includes the number of responsibilities of the PES in the YG as well as their main outreach tools based on European Commission (2017a). Furthermore, it includes indicators on whether the PES is the main body responsible for the administration and payment of unemployment and/or other types of benefits (based on European Commission 2017a).
- iii. An indicator from European Commission (2017a) that reflects whether the respective PES is reported to have taken any additional measures with respect to preventing school drop-out.

2.2.5. Indicator set 5: Design and implementation features of the Youth Guarantee

This set covers further design and implementation indicators that are likely to affect the performance of the YG as implemented by the Member States:

- i. Indicators on the envisaged length of the preparatory phase, the eligible age group, the main YG provider, whether online registration is possible for potential YG participants as well as whether Member States created a legal entitlement to receive an offer (all based on European Commission, 2016c). In addition, there is an indicator measuring whether Member States specifically target the long-term unemployed (Escudero and Mourelo, 2017).
- ii. A categorical indicator providing information on whether a YG-related scheme was already in place (in the long-term or recently) before the Recommendation (based on European Commission, 2016c).
- iii. Information on whether the Member States established a formal definition of a good quality offer within the YG scheme (European Commission 2016a) and whether quality management guidelines exist from the national administration to organisations involved in YG (based on European Commission, 2017a).
- iv. Indicators to reflect the relevance and potential upscaling of national PES capacity since the YG Recommendation (all reflecting 2017 responses of PES, based on European Commission, 2017a). These include whether the PES has dedicated YG staff, whether the PES provides training for YG staff, whether the PES staff increased or remained the same from 2014-2017, and whether the PES has specific targets for youth (ibid.).

²⁴ Optionally, the use of a more general measure of the *NEET Cluster Type* was tested, which is a composite indicator on different levels, reflecting the STW transition system and the composition of NEET in 2012 (Eurofound, 2016). However, as the clustering is based on the share and STW transition type data already employed, the indicator is not used in the analysis.

2.2.6. Indicator set 6: The role of the apprenticeship system in the Youth Guarantee

The final set of indicators represents the relevance and the set-up of apprenticeships in the national education and training system, as well as their role in the YG's implementation:

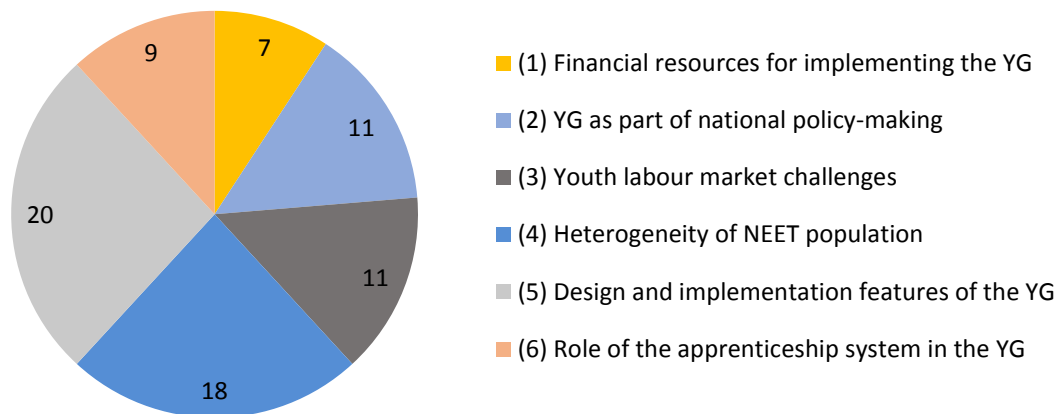
- i. To provide information on the STW transition types of Member States, indicators are included based on the classification by Pohl and Walther (2005, 2007). Furthermore, an indicator on the share of firms employing initial vocational training participants in 2010 is used (Ireland: 2015) (Eurostat: trng_cvt_34s).
- ii. To reflect the relevance of apprenticeships in the YG implementation: indicators on the number of offers of apprenticeships relative to the total number of all types of offers that are typically made to young people registered in YG schemes (based on European Commission 2018b). In addition, a measure for the apprenticeship-intensity of timely exits in 2016, i.e. the share of all timely exits that were apprenticeship offers (based on European Commission, 2018b).
- iii. The normalised number of pledges from firms and institutions to the European Alliance for Apprenticeships between the outset of the YG in 2013 and 2018 (based on the national commitments database²⁵).

2.3. Conclusion

This chapter has provided a comprehensive overview of the main aspects of the YG implementation in context. Specifically, subsection 2.1 discussed a) the main financial resources for implementing the YG, b) the YG's integration within national policy-making, c) the YG and youth's labour market challenges, d) the diversity of the NEET population, e) design and implementation features of the YG, and f) the role of the apprenticeship system in the YG. Section 2.2 proceeded to identify and map six sets of empirical indicators to each of these six implementation aspects. In total, 76 empirical indicators were identified, which will form the basis of the systematic analysis of a YG typology in the next section. Figure 5 gives a graphic overview of the number of indicators included in each of the six indicator sets representing the key implementation aspects.

²⁵ The national commitments database, available at: <http://ec.europa.eu/social/main.jsp?catId=1148&langId=en> as of September 17, 2018. This database also provides information on the number of pledges made by firms and institutions. For the analysis, the number of pledges is normalised by the share of firms employing IVET participants in each Member State to account for the relevance of the VET system.

Figure 5. Number of indicators identified by variable set



Source: Own analysis.

Figure 5 illustrates that, for example, indicator set (5) – which represents the design and implementation features of the YG – is the largest set comprising 20 indicators. Whereas the indicator sets (1) on financial resources for implementing the YG and (6) on the role of the apprenticeship system (6) are somewhat smaller, they still contain seven and nine indicators, respectively.

3. Typology of Youth Guarantee models

This section is the empirical part of the analysis. Based on the identification of the set of relevant implementation aspects and the corresponding empirical indicators in the previous section, Chapter 3 intends to systematise the main models that are currently in place for delivering the YG in Member States. It is an empirical attempt at establishing a typology of different intervention models, based on cluster analysis. This section also explores whether a correlation between specific types of intervention models and performance in delivering the YG can be identified.

3.1. Empirical approach to establishing Youth Guarantee models

To address the question about which main models are currently in place for delivering the YG, the analysis groups Member States according to their similarity across the empirical indicators presented in section 2.2. Since both contextual features and implementation-related factors are included, this procedure identifies types of countries that are similar in both dimensions.

To detect these types, cluster analysis techniques are used in which the goal is to find groups of observations in the data – that is, groups of Member States – that are most similar *within* clusters while being as dissimilar as possible *across* clusters. In this study, hierarchical agglomerative clustering methods are employed. These methods start out by specifying each Member State as one individual cluster. The cluster approach then gradually combines Member States into clusters. The choice of which clusters are to be combined is determined by comparing their (dis-) similarity. In the empirical application, an adequate measure of dissimilarity is the coefficient by Gower (1971) as it allows for the combination of binary indicators and multivalued variables. The choice of the linkage method (the way the clustering algorithm combines similar observations into clusters) is of similar importance: in this case, the Ward method (1963) is chosen which combines groups or observations if they increase the within-group variance of the chosen indicators by the least amount possible in the data. Lastly, the authors needed to choose the

number of clusters to be generated. Since this is not obvious in the application at hand, the Duda-Hart optimality criterion as described by Milligan and Cooper (1985) was applied. This means that intuitively the index computes the added value of increasing the number of clusters by one, so a low Duda-Hart index indicates an optimal number of clusters. In the YG case, the comparison is restricted to between three and seven clusters, as fewer clusters provide too little information while too many clusters hamper the interpretability of results.

The empirical application follows a two-step procedure. In the first step, a cluster analysis for each set of the empirical indicators defined in section 2.2 determines sets of countries that are similar within each of these six conceptual sets. For example, the set on financial resources puts countries, with magnitudes of expected and realised costs for implementing the YG based on the available information, together. In the second step, the main cluster analysis based on all indicators determines a final cluster analysis which also allows the authors to analyse their correspondence to the sub-clusters from the first stage. Readers should note that the quality of the cluster groups depends – among other factors- on the data quality of available indicators as well as the number of indicators used. The more indicators are required for meaningful results, the more difficult it is to obtain clusters that differ sharply with respect to all the chosen indicators. Thus, it may be that one country differs quite substantially in terms of one indicator from the rest of the countries in a particular cluster if the other indicators show similar realisations. Hence, for the description of clusters, attention is restricted to those indicators that summarise the cluster differences the best, presenting the general tendencies of the cluster analysis, necessarily simplifying to a certain degree. Furthermore, readers should also note that the groupings following from this exercise do generally not imply any qualitative ranking.

3.2. Description of first-step clusters

3.2.1. Indicator set 1: Financial resources

Cluster A (AT, DK, FI, DE, LU, NL and SE) is a set of countries with a low estimated cost of fully implementing the YG that received relatively little financial support from EU funds, both via the YEI and the ESF. On average, these states show very little changes in active labour market policy (ALMP) spending between 2012 and 2015.

Cluster B (BE, CZ, EE, FR, IE, IT, MT, RO, SI and UK) and Cluster C (ES, LT, LV, PL and PT) are countries with costs estimated to be of medium magnitude to fully implement the YG. Country cluster C received more EU funds from the YEI and the ESF matching funds - and other ESF eligible youth-related projects - compared to cluster B. Both clusters showed only a small change in ALMP expenditure.

Cluster D (BG, CY, EL, HU, HR and SK) has high estimated YG costs and they received substantial monetary support from the EU to support the implementation of the YG through the YEI, through the ESF matching funds and through financing of other eligible youth-related projects. Cluster D is also the only one in the analysis that shows a substantial increase in ALMP spending between 2012 and 2015, despite declining (youth) unemployment rates.

3.2.2. Indicator set 2: Youth Guarantee as part of national policy-making

Cluster A (DK, ES, FR, HU, IE, SE and SK) has a large average number of youth-related ALMP reforms and additional measures implemented beyond the scope of the Recommendation. These Member States also tend to enforce comparatively effective YG moni-

toring and follow-up systems, which may be interpreted as an indication that they are committed to deliver on the YG. However, on average, these Member States did not prioritise partnerships as much as other clusters.

Cluster B (AT, CZ, DE, EE, EL, NL, RO and UK) is mostly defined by the lack of effective monitoring and follow-up systems, and also fewer reforms were put in place compared to Member States in other clusters. Nonetheless, on average, they put more emphasis on involving social partners and youth organisations and built more partnerships than countries in cluster A.

Cluster C (BE, BG, CY, FI, HR, IT, LV, LT, LU, MT, PL, PT and SI) implemented many youth-related reforms and additional measures as part of the implementation of YG recommendations. However, in contrast with cluster A, these Member States also included partnerships with social partners and youth organisations as a central element of the initial YG design. Consequently, the PES in these Member States often said that they had formed partnerships and that they regularly involve youth and youth organisations into their work. Nonetheless, their monitoring systems are still underperforming compared to countries in Cluster A.

3.2.3. Indicator set 3: Youth labour market challenges

Cluster A (BG, CY, EL, HR, PL and SK) includes Member States that had the highest NEET rate amongst 15-29 year olds in 2012 before the YG was rolled out. Moreover, they show the largest difference in shares of temporary employment contracts between the youth and adults. Countries in this cluster have the best educated NEETs on average. This also reflects the point that the issue was not so much the education system, as the figures also show a comparatively low average shares of school drop-outs. Correspondingly, Member States in cluster A usually responded by focusing on employment-related measures under the YG, rather than offers of education.

Cluster B (AT, DE, DK, ES, LV and MT) relates to the contrasting cases. These Member States tend to have comparatively low NEET shares with most of them having a poor level of education, and the lowest average youth-to-adult unemployment ratio. In addition, these countries appear to have a rather well-functioning educational system with similarly low average shares of early school-leavers, compared to cluster A. Most of these Member States responded to this setting with a strong focus on educational offers under the YG.

Cluster C (BE, CZ, EE, FI, FR, HU, IE, IT, LT, LU, NL, PT, RO, SI, SE and UK) ranks in between cluster two and three on many indicators, including the prevalence of low educated NEETs, education and employment offers. In general, this cluster has the lowest difference in temporary employment shares between adults and the youth.

3.2.4. Indicator set 4: The heterogeneity of the NEET population

Cluster A (BE, BG, FI, MT and NL) consists of countries that have a particularly high share of NEETs in short-term unemployment, illness or disability and 'discouragement from working'. The policy response of these countries is characterised by the highest average outreach efforts on the part of the national PES.

Cluster B (CZ, DE, EE, EL, FR, HU, HR, LT, LU, PL, SI and UK) has the highest share of short-term unemployed and individuals with family responsibilities among the NEETs. Similar to cluster A, countries from cluster B display strong average outreach efforts and a large degree of involvement of the PES in delivering the YG.

Cluster C (AT, CY, DK, ES, IE, IT, LV, PT, RO, SK and SE) is the most diverse for this indicator set and shows the highest share of long-term unemployed and relatively high rates of discouraged youth among the NEET population compared to other clusters. The governance structure shows a lower degree of PES having responsibility for administering and paying (unemployment) benefits as well as regarding the implementation and delivery of the YG in general. Compared to clusters A and B, Member States from cluster C tend to show fewer outreach efforts.

3.2.5. Indicator set 5: Design and implementation features of the Youth Guarantee

Cluster A (AT, CY, DE, DK, EL, FI, HR, IE, LU and SE) includes many Member States which set the age target as under-25 years old.²⁶ These countries also tend to define very few other eligibility criteria or target groups. Importantly, all Member States included in this category have a relatively long experience of YG-type schemes prior to 2013. However, only very few of them defined a legal entitlement to receive an offer. These are also countries that mostly allowed individuals to register online, set a definition for a quality offer and also provided national quality guidelines for all actors involved in the YG. Many of the Member States in this cluster also primarily rely on their PES in the YG implementation and have strengthened their PES capacities since the YG rollout.

Cluster B (BG, CZ, ES, FR, MT, NL, PT and RO) includes a relatively diverse set of countries. Most countries in this cluster have no prior experience of a YG-type of scheme, relatively low availability of online registration and a low prevalence of the definition of quality offers. While some countries additionally target NEETs under 30 years old, in general they neither upgraded the capacity of nor relied strongly on their PES in its implementation.

Cluster C (BE, EE, HU, IT, LV, LT, PL, SI, SK and UK) primarily consists of countries that set the target for youth aged under 30. In addition, many of these countries set additional target groups beyond the general criteria (such as a specific focus on long-term unemployed) or defined specific sub-groups within the broad target population. Similar to cluster A, some Member States with previous YG-related experience are included in this cluster. In addition, they tend to have upgraded their PES capacity for YG implementation (but they also rely on other providers). These are also mainly countries that implemented a legal entitlement and also a definition of a quality offer (without, however, providing national guidelines).

3.2.6. Indicator set 6: The apprenticeship system

Cluster A (AT, BE, DE, FR, LU and NL) consists of countries with an employment-centred STW transition type²⁷ that is characterised by high levels of employer involvement in education and training system and the largest share of firms employing initial vocational and educational training (IVET) participants. On average, Member States in this group show the largest share of timely exits from apprenticeships. Relative to the share of firms employing IVET participants, the number of pledges within the Eafa framework is

²⁶ It is important to note that most implementation-related indicators, for example information on eligible age groups, were measured in 2016. For a few countries, these conditions have changed recently. However, in the analysis it was decided to stick to the initial implementation features to focus on the way Member States initially aimed to combat youth unemployment.

²⁷ See Pohl and Walther (2005) for details.

the lowest in this group, potentially reflecting the already high importance of apprenticeships in these countries.

Cluster B (BG, CZ, EE, HU, LT, LV, RO, SK and SI) is made up of Member States that joined the EU relatively recently, with a 'transitional' STW transition type and the lowest share of firms employing IVETs. Their share of apprenticeships is lowest among the timely exits, and their number for EAFA pledges is relatively the largest.

Compared to cluster A and B, cluster C (CY, DK, EL, ES, FI, HR, IE, IT, MT, PL, PT, SE and UK) also consists of a mixture of STW types and a medium share of firms hiring IVETs. Apprenticeship offers are of medium importance relative to the other two clusters.

3.2.7. Summary of first-step cluster analysis

The analysis of Member States' similarities within the indicator sets shows that the resulting country clusters tend to be different depending on the set of indicators, although certain tendencies are already apparent. For instance, countries that are included in the same cluster for the YG design and implementation indicators tend to also be grouped into the same finance cluster, meaning that some countries with a low estimated cost of implementing the YG tend to also be countries that show implementation patterns that closely followed the Recommendation. Similarly, countries in the same apprenticeship cluster tend to be in the same "youth labour market challenges" cluster. While this already provides some suggestions for the final grouping of Member States with respect to all indicators chosen, the overlap across clusters for the different indicator sets is not complete so a more in-depth analysis is needed. Specifically, some clusters remain relatively heterogeneous in terms of the underlying empirical indicators, indicating that the cluster analysis has some difficulties if Member States' realisations of indicators do not follow a simple pattern, making the interpretation of some cluster results more difficult than others. For these reasons, and to further reduce the dimensionality of the problem, the next section groups Member States based on all the chosen indicators. To make the connection between the first-step analysis and the ensuing second step, the association of first-step clusters with the final cluster results is also shown.

3.3. Results and discussion of second-step clusters

The final cluster analysis uses all the indicators described in the previous section and performs the clustering procedure for all variables in a combined step, thereby arriving at clusters that take the individual sub-clusters as well as the interaction between them into account. Table 2 shows the results by Member States, including their association with the clusters uncovered in the first stage of the analysis, all ordered by the final results. Being in the same first-step cluster is visualised as having the same shade of the colour in the respective column. It is important to note that the colours chosen imply no qualitative or quantitative judgement apart from the cluster membership.

Table 2. Summary of Results of Cluster Analysis

Country	Financial resources for implementing the YG	YG as part of national policymaking	Youth labour market challenges	Heterogeneity of the NEET population	Design and implementation features of the YG	Role of the apprenticeship system in the YG	Overall cluster
Austria	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	A
Denmark	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Finland	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Germany	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Ireland	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
The Netherlands	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Sweden	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
The Czech Republic	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	B
Estonia	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
France	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Hungary	Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Romania	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
The United Kingdom	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Cyprus	Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	C
Greece	Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Italy	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Portugal	Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Spain	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Belgium	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	D
Lithuania	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Luxembourg	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Malta	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Poland	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Slovenia	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Bulgaria	Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	E
Croatia	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Latvia	Light Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	
Slovakia	Yellow	Light Blue	Grey	Dark Blue	Light Grey	Light Orange	

Source: Own analysis.

Note: Countries that share the same first-stage cluster have the same shade of the colour in the respective column. Note that the colour shades imply no qualitative or quantitative ranking of Member States.

Cluster A: Member States with previous YG experience, lower initial NEET rates, ambitious implementation and improved PES capacity, low educated NEETs and diversified offers (AT, DK, DE, FI, IE, NL, SE)

The first cluster is a set of Member States that are mostly countries which already had longer experience with YG-related schemes. On average, YG implementation in these countries was quite ambitious: many of these Member States undercut the recommended four-month target for the preparatory phase, and formally defined their offer quality and quality guidelines. Countries in this cluster tend to rely relatively strongly on their PES for the YG, while upscaling their PES capacity through hiring additional staff. At the same time, they also experienced the lowest average NEET rates in 2012 for all clusters and they consequently had comparatively low estimated costs and therefore low levels of funding allocated under the YEI. However, the cluster's NEET population has the highest share of individuals with low educational background and youth with a disability. Following this NEET challenge, they diversified their offers under the YG across types the most compared to other clusters with the lowest focus on employment-type offers. Involvement and integration of partners within the YG framework in these countries was about average compared to the other clusters.

Cluster B: Member States with intermediate NEET challenges, strong outreach efforts by the PES, relatively poor monitoring data quality, high NEET rates due to family responsibilities and strong focus on employment offers (CZ, EE, FR, HU, RO, UK)

On average, these Member States mostly observed a NEET challenge of intermediate magnitude, relative to other clusters at the time of the YG roll-out. The labour markets for youth in this cluster were under more stress and characterised by high rates of short-term unemployment among their youth – for some of them also as a consequence of the great recession. Furthermore, this cluster also had by far the highest share of youth that were NEETs due to family responsibilities, and the largest gap between youth and adult unemployment rates. As a result, most of them received some funding under the YEI. It is also notable that countries in this cluster showed the largest increase in ALMP expenditure between 2012 and 2015. However, compared to the other clusters, countries in this cluster showed particularly poor monitoring data quality, so their information has a high degree of unknown destinations and situations for previous YG participants. On implementation, a significant fraction of Member States from cluster B chose slightly different targets (for example through targeting long-term unemployed, introducing a legal entitlement to a YG offer and extending the age limit up to age 29). They could build on a comparatively advanced outreach system through the PES, which they also relied on in their YG implementation. Furthermore, four of the seven countries in this cluster follow the post-socialist/transitional STW model (the Czech Republic, Estonia, Hungary, and Romania). On average, these countries showed the lowest level of involvement of the social partners and youth organisations, and relatively few efforts at reform. On average, countries in this cluster had the highest rate of timely exits into employment, indicating a tendency towards an “employment-first” approach.

Cluster C: Member States hit by the economic recession, with highest initial NEET rates, severe long-term unemployment, large support via EU funding, highest reform efforts and highest entry rates into apprenticeship offers (CY, EL, ES, IT, PT)

The third cluster consists mainly of Member States that were hit particularly hard by the economic recession following the financial crisis in the years after 2008, and they were struggling to revive their labour markets in the ensuing recovery. As a consequence, most countries had a severe problem with long-term youth unemployment into 2012.

Moreover, countries in this cluster had on average the highest rate of early school-leavers. Almost all these Member States received significant funds from the EU to support the YG implementation and delivery. In contrast to Member States in Clusters A and B, none of the countries in cluster C had any kind of experience of a YG type of framework before the Recommendation, making its implementation even more difficult in these countries. However, in terms of policy integration, these Member States rank at the top of youth-related ALMP reform efforts. At the same time, most of these countries still have monitoring systems with relatively poor data quality, and their PES used relatively few channels for outreach activities compared to countries in the other clusters. Regarding partnerships built, countries in this cluster show an average degree of effort. While the share of low educated NEET is comparable to those in Cluster B and average exits rates into education are only slightly smaller than among countries from Cluster B, the share of individuals entering apprenticeships is highest among these countries, suggesting a stronger focus on the provision of both training and work experience to combat the NEET challenge.

Cluster D: Member States characterised by relatively low initial NEET rates and short-term unemployed rather than inactive NEETs, some funding under YEI, strong outreach efforts through the PES and partnership approach, and diversified offers with a stronger focus on education offers (BE, MT, LT, LU, PL, SI)

The challenge for most Member States in this cluster was the high proportion of youth in unemployment, rather than a structural NEET challenge, as most of their NEETs are short term unemployed rather than discouraged NEETs or inactive for other reasons. Most of the countries in cluster D have medium-level estimated costs of fully implementing the YG. Consequently, most of these Member States did not receive particularly large amounts of funding from the EU (except Lithuania and Poland). At the same time, these are mainly Member States that put the most weight on building partnerships, involving social partners and youth organisations as well as outreach efforts, including through the PES. Many of the Member States in this cluster followed the Recommendation quite closely in terms of the time-frame for the YG, but they did not establish strong monitoring systems, and they did not carry out many youth-related reforms in recent years, relative to other Member States. In terms of the offer distribution, these countries generally showed diversified offers with the strongest focus on education measures, shown by the largest share of timely exits from the YG into education and the lowest focus on employment offers. This is despite the fact that, on average, clusters B, C and D had very similar shares of low and medium educated NEETs at the onset of the YG, suggesting a very different policy response.

Cluster E: Member States that joined the EU relatively recently, with 'transitional' STW regimes, high initial NEET rates, structural challenges and substantial EU funding, focus on employment offers, rather high reform efforts (BG, HR, LV, SK)

This cluster consists entirely of countries that joined the EU relatively recently compared to the other Member States. They are countries with a 'transitional' STW regime and without prior experience in YG-type of frameworks before the Recommendation. While these countries have the lowest rate of early school-leavers and a substantially lower share of low educated individuals among the NEETs compared to the other clusters, this cluster has the second largest share of NEETs with family responsibilities and the largest share of discouraged youth. This suggests that they struggled with more significant structural NEET challenges compared to the other clusters. The high NEET rates resulted in high estimated costs for implementing the YG and consequently these Member States also received substantial funding from the EU.

Moreover, these Member States also put in place a significant number of youth-related ALMP reforms between 2013 and 2016, only outpaced by cluster C. In terms of design and implementation, all of these countries chose to target youth under 30 and most put particular emphasis on long-term unemployed individuals. The degree of outreach efforts through the PES is of average magnitude, but the involvement of social partners and youth organisations is highest among countries in this cluster. This may indicate a certain degree of mismatch regarding outreach activities and the efforts likely to be required to activate the substantial share of discouraged NEETs in the youth population. However, this cluster is the only in which all the Member States have YG-specific staff at the PES and where all of them increased PES staff in recent years. Due to the relatively well-qualified nature of the NEET population, Member States in this cluster concentrated mostly on employment-type offers.

3.4. Conclusion of second-step clusters

Breaking down the differences between clusters in a simple way is evidently challenging due to the many aspects considered and highlighted in the cluster-specific characterisations. This section therefore only provides a short conclusion to the findings in the final cluster analysis, indicating several sorts of Youth Guarantee models in place in the European Union. It shows three clusters with comparatively low initial NEET rates at the outset of the YG: Cluster A, Cluster B and Cluster D. What distinguishes these clusters from one another, among other issues, is that Member States in Cluster A already had a longer experience of YG-related schemes, they observed fewer youth-related challenges and hence they received less additional funds from the EU.

In contrast to this, most Member States with the most pressing NEET challenges in 2012 are found in the other two clusters. Cluster C and Cluster E include Member States with particular NEET challenges, mostly related to the financial crisis and recession for countries in Cluster C. Member States in Cluster E also had a particular structural NEET challenge, partially stemming from the transitional STW regime, and they all received significant funding from the EU.

3.5. Measures of performance

Before investigating the correlation between the types of European YG models identified and the performance of the YG implementation, the analysis needs to define the relevant outcome measures employed for this last step of the empirical analysis. The correlation analysis will make substantive use of information from the YG monitoring data. The most recent data available at the time of writing are from 2016 and they include information on the main dimensions of the Recommendation:

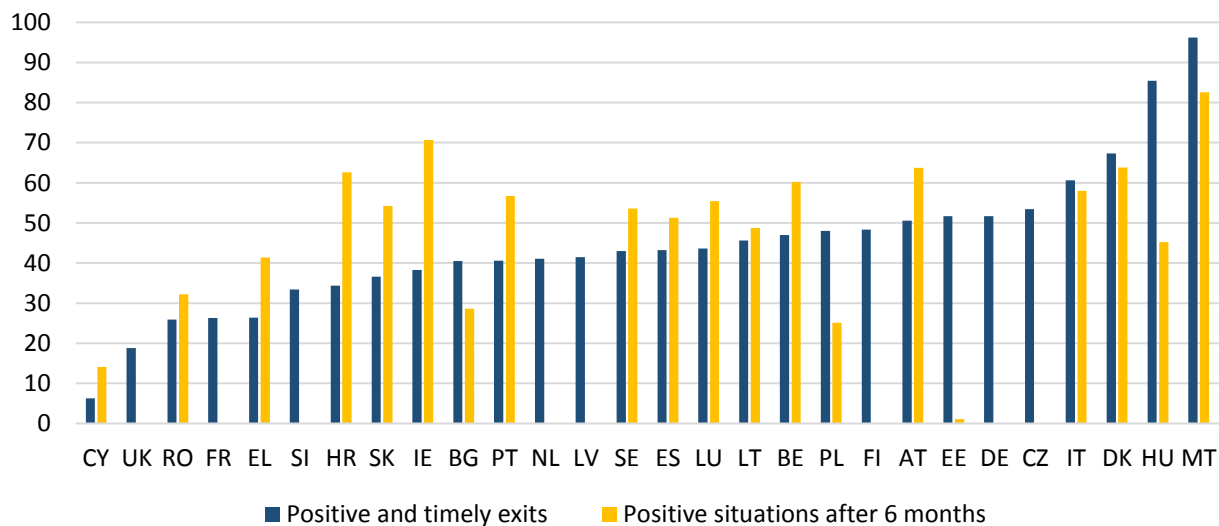
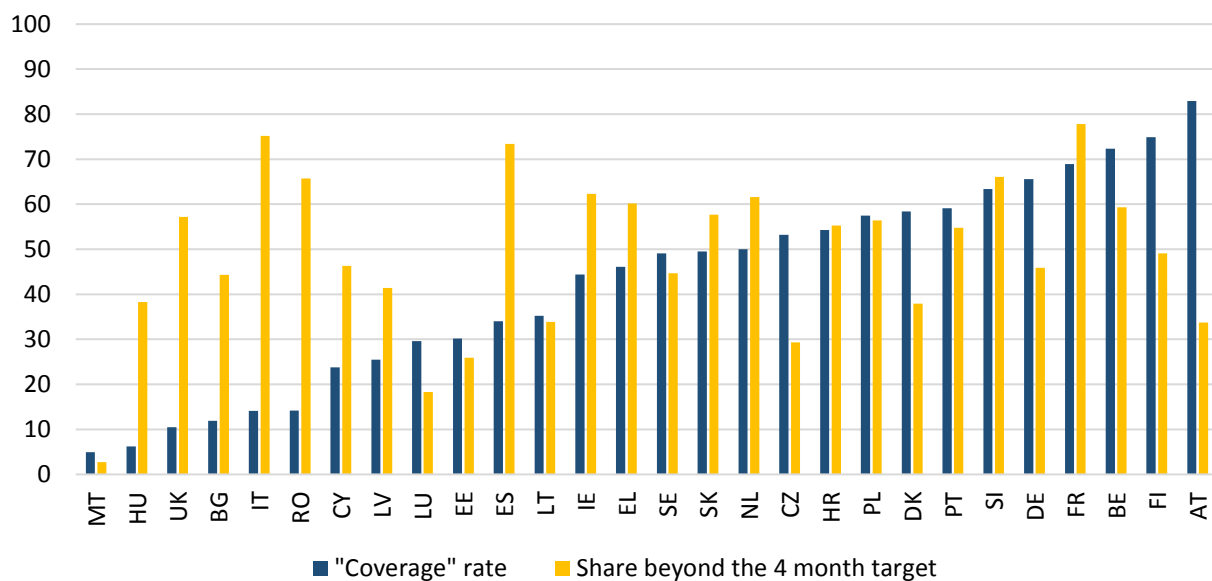
- i. "Coverage" rate: provides an estimation of the degree to which the NEET population was reached by the YG (the estimated proportion of the NEET population aged 15-24 that was enrolled in the YG scheme at any point during the reference year).²⁸

²⁸ These figures are based on the indicator "average annual stock of young people in the YG preparatory phase / NEET population (annual average)" included in the Indicator Framework for Monitoring the Youth Guarantee. This indicator combines administrative and survey data. Whilst this is not ideal, the indicator is useful to give an approximate indication of the proportion of NEETs registered in the YG scheme at any point during the year. Results should therefore be interpreted as an estimation, rather than a definitive measurement, of the extent to which YG schemes achieve the objective of reaching all young people that become, or are already, NEET.

- ii. The share beyond the four-month target: the share of young people in the preparatory phase beyond the four-month goal, measured as a percentage of the average annual stock of participants.
- iii. Positive and timely exits: the share of positive and timely exits shows how successful Member States were at providing offers within the envisaged four-month preparatory phase, measured in percentage of all exits.
- iv. Positive situations after six months: this measure gives the percentage of YG participants being in a positive situation at six months after exiting the programme - the share of individuals either in education, training or employment as a percentage of all exits.

These performance indicators provide the most comprehensive and direct evidence on the performance of the YG. However, there are some data limitations regarding the degree to which the entire NEET population can be identified, relevant for the comparability of the coverage rate across Member States. The quality of information on positive and timely exits as well as the share of participants in a positive situation after exiting the YG depends on the degree to which the destination of exits is known, and how well individuals can be followed up. Again, to a certain degree, this limits comparability across countries. The distribution of these indicators across Member States is depicted in Figure 6. For the interested reader, a separate cluster analysis solely based on the measures of YG performance in Table 4 is included in the Annex.

Figure 6. YG-monitoring data performance indicators by Member States, 2016



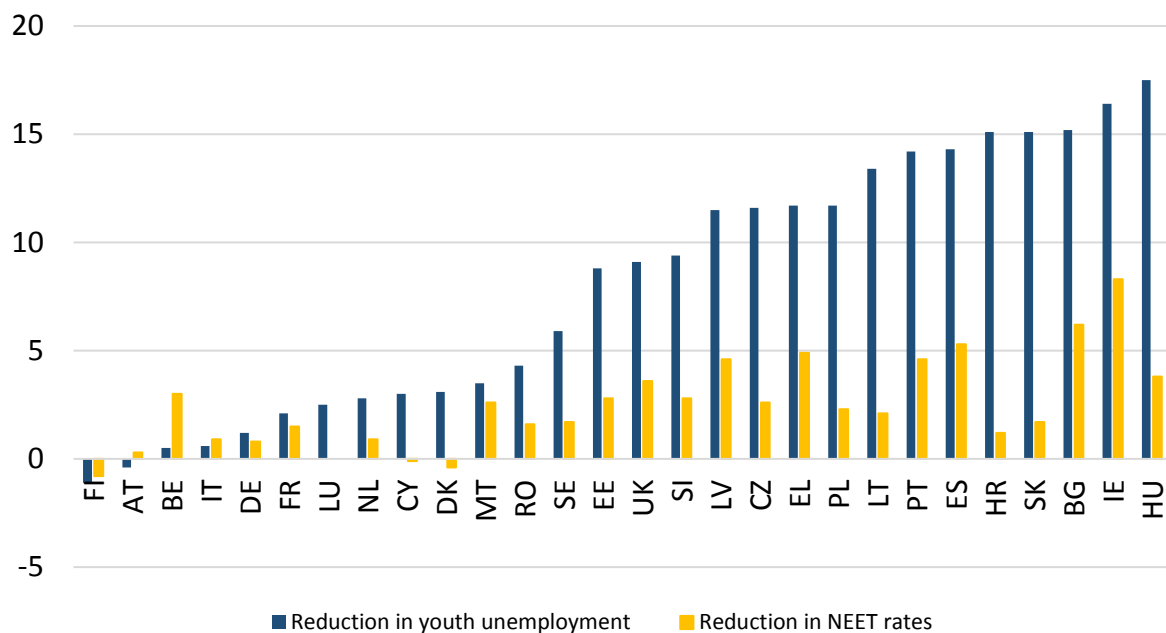
Source: YG monitoring data.

To account for measuring issues in the monitoring data, and because the main goal of the YG was to lower youth unemployment and the prevalence of NEETs in general, the reduction from 2012 to 2017 in NEET rates and youth unemployment rates based on Eurostat indicators is used as additional outcome measures:

- v. Youth unemployment: this measure gives the percentage of the 15-24 year old young people in the labour force that are unemployed.
- vi. NEET rates: the NEET rate indicator is defined as the share of the youth population (active or inactive), aged 15-24, that is not in employment, education or training.

The distribution of these indicators is shown in Figure 7.

Figure 7. Eurostat performance indicators by Member States, 2012-2017

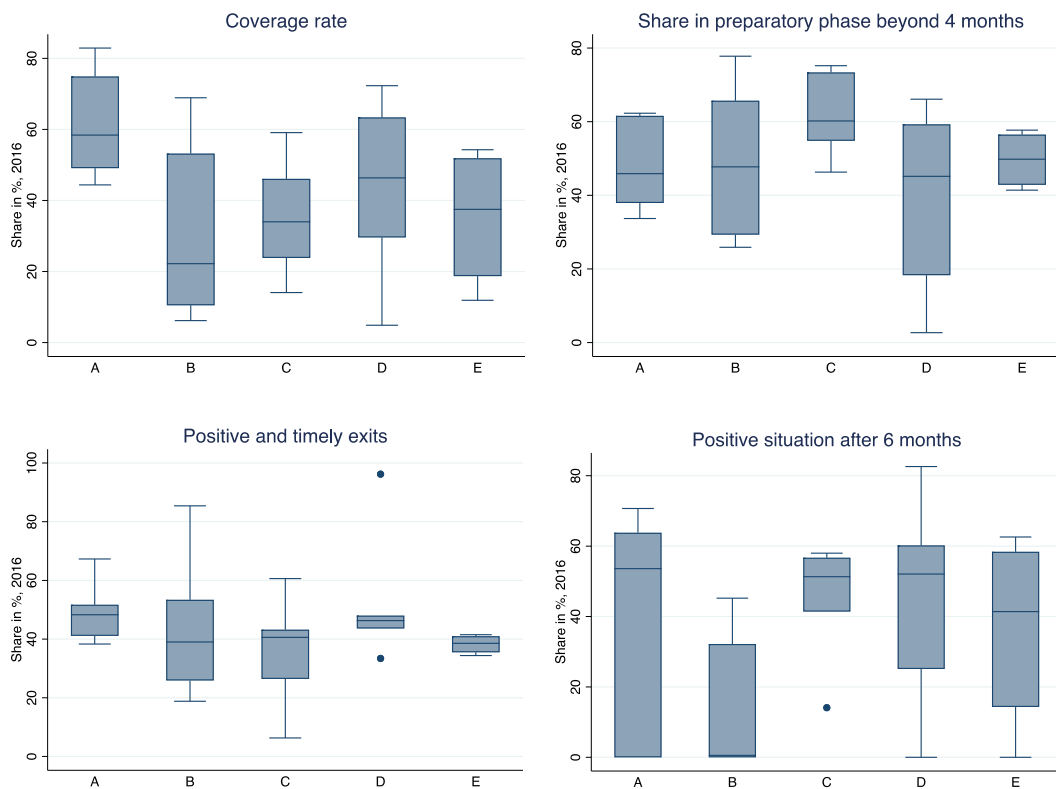


Source: Eurostat (une_rt_a, lfsi_neet_a).

3.6. Assessing the correlation between Youth Guarantee models and performance

The goal of this section is to compare the performance of the YG as implemented in each Member State across the clusters identified in section 3.4, and then to assess emerging patterns. This will be done by using box plots, shown for each of the performance indicators separately. Box plots allow the comparison of the distribution of indicators across clusters. The median, i.e. the observation in the middle in terms of outcomes (for instance, the middle value of all coverage rates within a cluster, Figure 8 upper left panel), is shown by the horizontal lines within each box. Furthermore, the size of the box shows the location of the 50% closest observations to the median. Observations outside this box are shown in the graph by the so-called 'whiskers'. Extreme values that are far away from the box are displayed as dots. Figure 8 shows the distribution of performance measures for the YG monitoring data.

Figure 8. YG monitoring data performance indicators by clusters



Source: Own analysis.

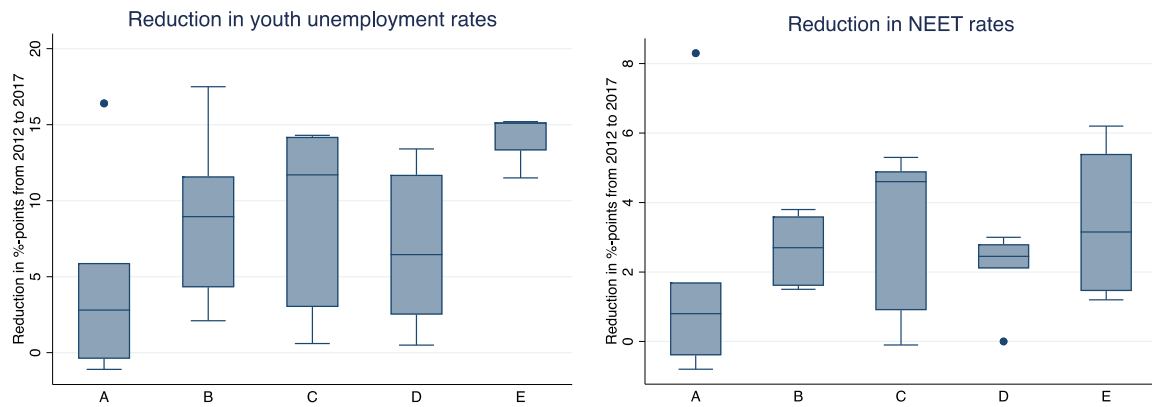
The graph for the coverage rate (upper left panel) shows that clusters A and D have the highest median coverage rates among the five clusters. This appears quite natural as these countries have had the lowest NEET rates at the onset of the YG, making it easier to cover a large portion of vulnerable youth compared to other countries. Clusters B, C and E perform relatively similarly in terms of coverage, with median values in the range of 20 to 40% coverage rate, despite the fact that clusters C and E had considerably larger NEET rates when the YG was first introduced. Among other factors, these two clusters have in common is that they received substantial funds from the EU to support YG measures and that countries from both clusters enacted a significant number of youth-related ALMP reforms.

The upper right panel displays results for the share of participants still being in the preparatory phase beyond the envisaged four months: in each of the clusters A, B, D, and E this share is in the range of 45 to 50% in terms of the median values; in cluster C this value is 60%. Clusters B and D show considerably more variation than the other clusters. The figure indicates therefore that the countries in cluster C appear to have put in comparatively lower effort to upscaling their PES to provide YG services in time, reflected in the fact that these countries have the highest share of individuals in the preparatory phase beyond the four month target.

With respect to positive and timely exits (bottom left panel) there is no pronounced variation in terms of median outcomes across the clusters. All of the clusters have positive and timely exit rates of around 40% or slightly higher. Finally, looking at the share of positive situations for YG participants after 6 months of leaving the programme (bottom right panel), one can see that the median outcomes are quite similar for all clusters except cluster B, which has substantially lower positive outcomes after 6 months. In addition, there appear to be substantial differences in the within-cluster variation of this out-

come: however, this finding is probably due to the lack of data, since for some Member States these figures are not available (and coded as zero in the monitoring data). A similar reasoning can be used to explain the large variation between clusters A and D.

Figure 9. Aggregate performance measures



Source: Own analysis.

Figure 9 investigates the reductions in youth unemployment rates and NEET rates from 2012 to 2017, respectively. Both graphs display a similar pattern, although the reduction in youth unemployment is generally larger, implying that a larger reduction was achieved among those youth closer to the labour market. Focusing on the cluster medians, the figure indicates that cluster A – the cluster with the lowest initial NEET and unemployment rates – shows the smallest decline. Clusters B, C and D show relatively similar reductions in youth unemployment, cluster E being at the top of the distribution.

The picture is slightly different when looking at the reduction of NEET rates. Here, cluster C has the largest median reduction in NEETs, and clusters B, D and E display similar performance, despite differences in variability. Thus, cluster E – the cluster with a combination of high initial NEET rates and more structural issues (such as a high share of discouraged NEETs) – was more successful in reducing youth unemployment, while cluster C (with similarly high NEET rates for 2012 but lower educated NEETs and the highest apprenticeship take-up rate in terms of timely exits among all clusters) was more successful in reducing its NEET rates.

4. Summary and conclusions

This report provides an updated overview of the implementation of the YG across EU Member States based on the recent literature and data on the YG and European labour markets. On this basis, six aspects of the Youth Guarantee implementation are discussed: (1) financial resources for implementing the YG, (2) the YG as part of national policy making, (3) youth labour market challenges, (4) the heterogeneity of the NEET population, (5) the design and implementation features of the YG, and (6) the role of the apprenticeship system in the YG.

The overall findings of the desk research and data analysis can be summarised as follows: EU funding initiatives via the Youth Employment Initiative (YEI) and the European Structural Fund (ESF) played a key role in supporting YG measures financially, especially for those countries suffering from high NEET rates, and a significant economic downturn or structural challenges. Many of these countries increased spending on active labour market policy, which may be cautiously interpreted as an indirect effect of the YG. In some Member States, the YG also fostered introduction of reforms of national youth poli-

cies, improvements in monitoring systems for activation policies among young people, and the building of partnerships. These changes are likely to outlast the YG initiative and therefore provide sustained and ongoing benefits.

Whereas these are substantive, positive changes brought about by the YG, not all of its objectives were achieved. First, neither reducing labour market segmentation through quality offers nor providing a remedy for imperfectly performing education systems was fully achieved. One reason was a prevalence of employment offers compared to relatively few education or apprenticeship offers. The low share of apprenticeship offers in some Member States appears to be related to the existing institutional setup and STW transition regime: increasing the prominence of the apprenticeship system would need to be accompanied by broader institutional change. Second, several Member States were not able to fully address the heterogeneity of the NEET population – especially those furthest away from the labour market. In contrast, countries that performed well generally improved the capacity of their Public Employment Services (PES) and developed partnerships to implement strong outreach programmes.

Based on desk research of the six key aspects that are likely to influence the performance of the YG as delivered by Member States, a set of empirical indicators was defined to measure the components of these six aspects using available quantitative and qualitative data. These empirical indicators feed into the main part of the analysis that identifies the YG typology in terms of the key aspects: specifically, this approach groups together Member States that share similar outputs across all the features included in the analysis. In practice, the typology is derived from a two-step cluster analysis using an agglomerative clustering algorithm.

The first step of the typology discusses the similarity between Member States regarding implementation-related and contextual features within six pre-defined sets of indicators, each corresponding to one of the six key aspects of the YG. The cluster analysis generates different group compositions regarding Member States for each of the sets of empirical indicators defined, so a low-dimensional analysis is only partially informative. This result indicates that many aspects of the YG – and their interrelation – need to be considered in a comprehensive typology. The second-step cluster analysis therefore simultaneously takes into account all of the 76 empirical indicators and identifies five final clusters:

Cluster A: Member States with previous YG experience, lower initial NEET rates, ambitious implementation and improved PES capacity, low educated NEETs and diversified offers (AT, DK, DE, FI, IE, NL, SE).

Cluster B: Member States with intermediate NEET challenges, strong outreach efforts by the PES, relatively poor monitoring data quality, high NEET rates due to family responsibilities and strong focus on employment offers (CZ, EE, FR, HU, RO, UK).

Cluster C: Member States hit by the economic recession, with highest initial NEET rates, severe long-term unemployment, large support via EU funding, highest reform efforts and highest entry rates into apprenticeship offers (CY, EL, ES, IT, PT).

Cluster D: Member States characterised by relatively low initial NEET rates and short-term unemployed rather than inactive NEETs, some funding under YEI, strong outreach efforts through the PES and partnership approach, and diversified offers with a stronger focus on education offers (BE, MT, LT, LU, PL, SI).

Cluster E: Member States that joined the EU relatively recently, with 'transitional' STW regimes, high initial NEET rates, structural challenges and substantial EU funding, focus on employment offers, rather high reform efforts (BG, HR, LV, SK).

Obviously, these explicit labels for the clusters tend to simplify the other factors of heterogeneity across Member States that determine the typology. However, some conclusions can be drawn regarding the fit of underlying challenges to be addressed with the policy response observed. In particular, it appears that countries in Cluster A, C and D reflected the challenges observed in the design and implementation of the YG to a higher degree compared to cluster B and E, as policies implemented – for example regarding outreach efforts, the extent of partnerships and the offer mix introduced – seem to better match key factors of heterogeneity in the NEET population.

Based on these insights, the analysis continues with a correlation analysis relating the identified YG models to basic performance indicators. The findings highlight that there is no evident pattern regarding the clusters' performance in general. Cluster A performs well in terms of the NEET "coverage" rate but less well regarding the reduction in NEET and unemployment rates over time. Clusters B and D perform relatively similar across all outcome measures, although there is some variation that probably stems from measurement issues in the monitoring data. Cluster C shows the largest share of youth in the preparatory phase beyond the envisaged four months but also the largest median decline in NEET rates. Cluster E has the lowest share of positive and timely exits but the largest decline in youth unemployment out of all clusters.

While the evidence is thus far from conclusive, partly due to the number and complex inter-relation of the aspects in which clusters differ, the report's findings nonetheless indicate that not only initial conditions but also the way Member States implement the YG has affected its success.

References

Andor, L. and Veselý, L. (2018), The EU's Youth Guarantee: a broadly accepted reform in need of full implementation, OSE paper series, No. 19.

ANPAL (2017), Rapporto sull'attuazione della Garanzia Giovani in Italia, *Rapporto trimestrale n. 4*, Roma.

ANPAL (2018), Monitoraggio sulla struttura e il funzionamento dei servizi per il lavoro, 2017, Roma.

Council of the European Union (2013), Council Recommendation of 22 April 2013 on establishing a Youth Guarantee, Official Journal of the European Union, Brussels.

Department of Education and Skills (2016), Evaluation of the operation of the Youth Employment Initiative (YEI) element of the European Social Fund (ESF) Programme for Employability, Inclusion and Learning (PEIL) 2014-2020.

Department of Social Protection (DSP) (2014a), Pathways to Work - The Implementation of the EU Council Recommendation for a Youth Guarantee.

Department of Social Protection (DSP) (2016a), Member States' response to 2013 Council Recommendation on establishing a Youth Guarantee [Ireland].

Dhéret, C. and Roden, J. (2016), Towards a Europeanisation of Youth Employment Policies? – A Comparative Analysis of Regional Youth Guarantee Policy Designs, EPC Issue Paper N°81.

Dhéret, C. and Morosi, M. (2015), 'One Year After the Youth Guarantee: Policy Fatigue or Signs of Action?', EPC Policy Brief. Brussels: European Policy Centre (EPC).

Doherty, R. (2018), 'Written answer – Youth Guarantee', Dáil Éireann Debate, 22 March 2018.

Eichhorst, W., Hinte, H. and Rinne, U. (2013), Youth Unemployment in Europe: What to Do about It?, IZA Policy Paper No. 65, July, <http://ftp.iza.org/pp65.pdf>

Employment Committee (EMCO) (2017). Ireland - 2017 EMCO Review on the Youth Guarantee – Self-Assessment Questionnaire.

Escudero, V. and E. López Mourelo (2017), The European Youth Guarantee: A systematic review of its implementation across countries. Research Department Working Paper No. 21, ILO, Geneva.

Eurofound (2013a), Young People and Temporary Employment in Europe, Publications Office of the European Union, Luxembourg.

Eurofound (2013b), Working Conditions of Young Entrants to the Labour Market, Publications Office of the European Union, Luxembourg.

Eurofound (2014), Mapping Youth Transitions in Europe, 23.7.2014, Publications Office of the European Union, Luxembourg.

Eurofound (2015a), Beyond the Youth Guarantee - Lessons Learned in the First Year of Implementation, Background Document prepared by Eurofound as a contribution to the informal EPSCO meeting of 16-17 July 2015, Publications Office of the European Union, Luxembourg.

Eurofound (2015b), Social Inclusion of Young People, Publications Office of the European Union, Luxembourg.

Eurofound (2016), Exploring the diversity of NEETs, Publications Office of the European Union, Luxembourg.

Eurofound (2017), Long-term unemployed youth: Characteristics and policy responses, Publications Office of the European Union, Luxembourg.

European Alliance for Apprenticeship (2013), "Declaration of the European Social Partners, the European Commission and the Lithuanian Presidency of the Council of the European Union", Brussels.

European Commission (2011), Youth Opportunities Initiative – Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions, Brussels.

European Commission (2013), Guidebook for Policy Planners and Practitioners on Apprenticeship and Traineeship Schemes in EU27, December.

European Commission (2016a), The Youth Guarantee and Youth Employment Initiative three years on. European Commission Directorate-General for Employment, Social Affairs and Inclusion, Brussels.

European Commission (2016b), Staff working documents 1 on "The Youth Guarantee and Youth Employment Initiative three years on". European Commission Directorate-General for Employment, Social Affairs and Inclusion, Brussels.

European Commission (2016c), Member States' response to 2013 Council Recommendation on establishing a Youth Guarantee, survey results, unpublished.

European Commission (2016d), Youth Guarantee Country by Country, March 2016.

European Commission (2017a), Report on PES Implementation of the Youth Guarantee, European Commission, Directorate-General for Employment, Social Affairs and Inclusion. Publications Office of the European Union, Luxembourg.

European Commission (2017b), Assessment Report on PES Capacity, European Commission, and Directorate-General for Employment, Social Affairs and Inclusion. Publications Office of the European Union, Luxembourg.

European Commission (2017c), Education & Training Monitor 2017, Comparative Report.

European Commission (2017d), JobsPlus Youth.

European Commission (2017e), Youth Guarantee Country by Country, March 2017

European Commission (2017f), Draft Joint Employment Report from the Commission and the Council accompanying the Communication from the Commission on the Annual Growth Survey 2018, COM (2017) 674 final, Brussels.

European Commission (2017g), Employment and Social Developments in Europe 2017.

European Commission (2017h), European Semester Thematic Factsheet – Employment Protection Legislation.

European Commission (2018a), The Youth Guarantee Country by Country. Brussels.

European Commission (2018b), Data collection for monitoring of Youth Guarantee schemes, Employment, Social Affairs & Inclusion.

European Commission (2018c), Continued Education Offers in the Youth Guarantee - Experience from the ground

European Commission (2018d), Traineeship offers under the Youth Guarantee

European Commission (2018e), Activation measures for young people in vulnerable situations - Experience from the ground

European Commission (2018f), Effective outreach to NEETs - Experience from the ground

European Commission (2018g), Youth Guarantee & Youth Employment Initiative Factsheet, 27/6/2018.

European Commission (2018h), Employment and entrepreneurship under the Youth Guarantee – Experiences from the ground.

- European Commission (2018i), Employment and Social Developments in Europe 2018.
- European Commission (2018j), data on national commitments regarding the European Alliance for Apprenticeships, <http://ec.europa.eu/social/main.jsp?catId=1148&langId=en>
- European Commission (2018k), ESF and YEI financial data by end 2017 submitted through SFC2014 by Member States – Note: EU amounts have been calculated on the basis of the applicable co-financing rates.
- European Commission (2018l), Continued Education Offers under the Youth Guarantee – Experience from the ground, Brussels.
- European Court of Auditors (2017), Youth unemployment – have EU policies made a difference? An assessment of the Youth Guarantee and the Youth Employment Initiative, Publications Office of the European Union, Luxembourg.
- European Employment Policy Observatory (EEPO) (2015). EEPO Country Reports – Ireland, Implementation of the 2013 Recommendation on establishing a Youth Guarantee.
- European Parliament (2015), Differential Treatment of Workers under 25 with a view to their Access to the Labour Market, Directorate General for Internal Policies Policy Department A: Economic and Scientific Policy.
- European Parliament (2017a), Workshop Summary Report, Youth Guarantee and Youth Employment Initiative: Lessons from implementation. Policy Department A: Economy and Scientific Policy, European Parliament, Brussels.
- European Parliament (2017b), Youth Employment Initiative: Lessons from implementation. Policy Department A: Economy and Scientific Policy, European Parliament, Brussels.
- European Parliament (2017c), Youth Guarantee: Lessons from implementation. Policy Department A: Economy and Scientific Policy, European Parliament, Brussels.
- 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)? Policy Department for Budgetary Affairs, Directorate General for Internal Policies of the Union.
- European Trade Union Confederation (2018), Boosting Unions' Participation to Guarantee Quality Transitions and Employment to Young People in Europe.
- European Youth Forum (2017), Excluding youth: a threat to our future.
- European Youth Forum (2018), Updated position on the Implementation of the Youth Guarantee, Brussels, Belgium.
- Eurostat (2015), Being Young in Europe Today.
- Eurostat (2018), How common is temporary employment in your country?
- Ghirelli, C., E. Havari, G. Santangelo and M. Scettri (2019), "Does on-the-job Training Help Graduates Find a Job? Evidence from an Italian Region", forthcoming in the International Journal of Manpower, 40(1).
- Gower, J. C. (1971), A general coefficient of similarity and some of its properties, in: Biometrics, Vol. 27, Nr. 4, S. 857–872.
- Gregg, P., and Tominey, E. (2005), The wage scar from male youth unemployment, Labour Economics 12, 487–509.
- Indecon (2016), Indecon Evaluation of JobBridge Activation Programme, Report prepared by Indecon International Research Economists and submitted to the Department of Social Protection.
- International Labour Organisation and European Commission, (2017). National Outreach Strategy for non-registered young unemployed and inactive young people in Portugal.

- Leigh-Doyle, S. (2014), Can subsidised employment and work-first measures assist the labour market integration of low-skilled unemployed youth?, Peer Country Comments paper – Ireland, EU Peer Review on 'Emplois d'avenir' – Jobs with a future' Scheme, Paris (France), 10-11 February 2014.
- Milligan, G. W., and Cooper, M. C. (1985), An examination of procedures for determining the number of clusters in a dataset. *Psychometrika* 50: 159-179.
- 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*, January-March 2015: 1-19.
- Pastore, F (2018), Why is youth unemployment so high and different across countries?. *IZA World of Labor* 2018: 420 doi: 10.15185/izawol.420
- Pastore, F. (2015), *The Youth Experience Gap: Explaining National Differences in the School-to-Work Transition*. Heidelberg: Springer International Publishing AG 2015.
- Pohl, A., and Walther, A. (2005), *Tackling Disadvantage in Youth Transitions - A Thematic Study on Policy Measures Concerning Disadvantaged Youth*. Report funded by the EU Action Programme to combat Social Exclusion, October.
- Pohl, A., and Walther, A. (2007), *Activating the Disadvantaged – Variations in Addressing Youth Transitions across Europe*. *International Journal of Lifelong Education*, 26:5, pp.533-553.
- Quintini, G. and Martin, S. (2014), 'Same Same but Different: School-to-Work Transitions in Emerging and Advanced Economies', *OECD Social, Employment and Migration Working Papers*, No. 154, OECD Publishing.
- Quintini, Glenda and Martin, John P. and Martin, Sébastien (2007), *The Changing Nature of the School-to-Work Transition Process in OECD Countries*. WDA-HSG Discussion Paper No. 2007-2.
- Scarpetta, S., A. Sonnet and Manfredi, T. (2010), 'Rising Youth Unemployment During The Crisis: How to Prevent Negative Long-term Consequences on a Generation?', *OECD Social, Employment and Migration Working Papers*, No. 106.
- Stokes, D. (2016), *Opening gateways to work for youth: But can success be guaranteed?*, Peer Country Comments Paper – Ireland, EU Peer Review on 'The Guarantee for Youth' (a particular measure within the broader context of the Youth Guarantee), Paris (France), 7-8 April 2016.
- Tosun, J., Unt, M., and Wadensjö, E. (2017) *Youth-oriented Active Labour Market Policies: Explaining Policy Effort in the Nordic and the Baltic States*. *Social Policy & Administration*, 51: 598-616.
- Treadwell Shine, K., (2016). 'Youth Guarantee in Ireland', Department of Social Protection presentation, Youth Opportunities at EU Level, Cork.
- Walther, A. (2006), *Regimes of Youth Transitions: Choice, Flexibility and Security in Young People's Experiences across different European Contexts*. *Young*, Vol. 14, No. 2, pp.119-139.
- Ward, J. H. Jr. (1963), *Hierarchical Grouping to Optimize an Objective Function*, *Journal of the American Statistical Association*, 58, 236-244.

Annex

Table 3. List of indicators

Indicator name and time of measurement	Source	Explanation
Financial resources for implementing the Youth Guarantee		
Initial YEI allocation (2014-2017)	EC (2016b), Eurostat (nama_10_gdp)	YEI allocation in % of GDP
YEI+ESF EU eligible cost (2017)	EC (2018k), Eurostat (nama_10_gdp)	YEI+ESF eligible cost in % of GDP
Other ESF eligible cost (2017)	EC (2018k), Eurostat (nama_10_gdp)	Other ESF eligible cost in % of GDP
Share of declared YEI+ESF funds (2017)	EC (2018k)	Declared YEI+ESF funds as a share of eligible cost
Estimated cost of the YG (2015)	Eurofound (2015)	Binary indicator for medium cost (0.3%-0.6% of GDP); reference category: low cost
		Binary indicator for high cost (>0.6% of GDP); reference category: low cost
Change in ALMP expenditure (2012 to 2015)	Eurostat (Imp_expsumm)	Difference in ALMP expenditure in % of GDP
YG as part of national policy-making		
Number of youth-related ALMP reforms (2013-2016)	LABREF database	Absolute number of reforms
Number of additional measures beyond Recommendation implemented in the context of the YG (2016)	EC (2016c)	Sum of binary indicators for additional measures regarding school dropout, social and welfare policies, volunteering, social economy and other.
Share of YG exits with unknown destination (2016)	EC (2018b)	Binary indicator for an unknown share of 10-30%; reference category: 0-10%
		Binary indicator for an unknown share of more than 30%; reference category: 0-10%
Share of unknown situations in the six month follow up (2016)	EC (2018b)	Binary indicator for an unknown share of 40-99%; reference category: 0-39%
		Binary indicator for an unknown share of 100%; reference category: 0-39%
Involvement of social partners (2016)	EC (2016c)	Sum of binary indicators for the involvement of social partners in design, implementation and evaluation/monitoring.
Involvement of youth organisations (2016)	EC (2016c)	Sum of binary indicators for the involvement of social partners in design, implementation and evaluation/monitoring.
PES involvement of youth in design of YG (2017)	EC (2017a)	Binary indicator
PES involvement of youth organisations in design of YG (2017)	EC (2017a)	Binary indicator
Partnerships formed by PES (2017)	EC (2017a)	Sum of binary indicators for PES partnerships aimed at increasing information availability, increasing work/education opportunities and easing the transition into employment from education/unemployment

Indicator name and time of measurement	Source	Explanation
Youth labour market challenges		
Youth share of total population (2012)	Eurostat (lfsa_pgaed)	Number of youth (15-24) expressed as % of total population
Youth-to-adult unemployment ratio (2012)	Eurostat (une_rt_a)	Youth (15-24) unemployment rate divided by adult unemployment rate (25-74)
NEET rate among 15-29 year olds (2012)	Eurostat (edat_lfse_21)	Total number of NEETs aged between 15 and 29 in % of total youth population
Difference in temporary employment shares (2012)	Eurostat (lfsi_pt_a)	Difference in temporary employment rates between youth (15-24) and adults (25-54)
Share of early school-leavers (2012)	Eurostat (edat_lfse_14)	Share of early school-leavers as % of youth population (18-24)
Share of low-educated NEETs (2012)	Eurostat (edat_lfse_21)	Number of NEETs with low education background divided by total number of NEETs (15-24)
Share of medium-educated NEETs (2012)		Number of NEETs with medium education background divided by total number of NEETs (15-24)
Share of employment offers (2016)	European Commission (2018b)	Number of employment offers as % of total offers typically made to participants
Share of timely exits into employment (2016)	European Commission (2018b)	Number of exits into employment as % of total timely exits from the YG
Share of education offers (2016)	European Commission (2018b)	Number of education offers as % of total offers typically made to participants
Share of timely exits into education (2016)	European Commission (2018b)	Number of exits into education as % of total timely exits from the YG
The heterogeneity of the NEET population		
Share of re-entrants among NEET (2013)	Eurofound (2016)	Number of individuals in the respective group in % of total NEET population
Share of short-term unemployed among NEET (2013)		
Share of long-term unemployed among NEET (2013)		
Share of individuals with illnesses/disabilities among NEET (2013)		
Share of individuals with family responsibilities among NEET (2013)		
Share of discouraged workers among NEET (2013)		
PES responsibility regarding paying of unemployment benefits (2017)	European Commission (2017b)	Binary indicator for the PES responsibility
PES responsibility regarding administering unemployment benefits (2017)		
PES responsibility regarding other types of benefits (2017)		

Indicator name and time of measurement	Source	Explanation
Number of responsibilities of the PES within the YG (2017)	European Commission (2017a)	Sum of binary indicators for the PES being responsible for managing the YG scheme, registering unemployed youth, providing (placement) services to youth, coordinating partners, outreach to NEETs, follow-up of participants, and design and maintenance of the monitoring scheme.
PES outreach activities (2017)	European Commission (2017a)	Binary indicator for the PES having awareness raising initiatives
		Binary indicator for the PES having outreach programmes for pro-active work with schools
		Binary indicator for the PES to cooperate with NGOs and youth organisations for outreach
		Binary indicator for the PES to have specific outreach caseworkers
		Binary indicator for the PES to have new points of entry (via new media)
		Binary indicator for the PES to provide single-point services/one-stop shops
		Binary indicator for the PES to have mobile PES initiatives
Binary indicator for the PES to have follow-up programmes to reach out to YG drop-outs		
PES programme for preventing high school dropout (2017)	European Commission (2017a)	Binary indicator
Design and implementation features of the Youth Guarantee		
Eligible age group (2016)	European Commission (2016c)	Binary indicator for YG eligible age group being under 25 year and recent graduates; reference category: under 25
		Binary indicator for YG eligible age group being under 26; reference category: under 25
		Binary indicator for YG eligible age group being under 27; reference category: under 25
		Binary indicator for YG eligible age group being under 30; reference category: under 25
Envisaged time-frame of intervention (2016)	European Commission (2016c)	Binary indicator for the target time frame being below 4 months; reference category: 4 months
		Binary indicator for the target time frame being above 4 months; reference category: 4 months
YG scheme specifically targeting long-term unemployed (2016)	Escudero and Mourelo (2017)	Binary indicator
Main YG provider (2016)	European Commission (2016c)	Binary indicator for the YG to be provided mainly by the PES and other institutions; reference category: only PES
		Binary indicator for the YG to be provided mainly by other institutions; reference category: only PES

Indicator name and time of measurement	Source	Explanation
Degree to which online registration for the YG is possible (2016)	European Commission (2016c)	Binary indicator for online registration being partly possible; reference category: not at all
		Binary indicator for online registration being possible everywhere; reference category: not at all
Legal entitlement to offer (2016)	European Commission (2016c)	Binary indicator for whether there exists an entitlement for young people to receive an offer in line with, or similar to, the Youth Guarantee
Previous experience with a YG-type of framework (2014)	European Commission (2016c)	Binary indicator for having recent experience with a YG-type of framework; reference category: none
		Binary indicator for having longer experience with a YG-type of framework; reference category: none
Formal definition of quality offer (2016)	European Commission (2016c)	Binary indicator having formally defined offer quality
National quality guidelines (2017)	European Commission (2017a)	Binary indicator having national quality guidelines from the national administration to all PES offices/other organisations involved in the YG
PES has YG-specific staff (2017)	European Commission (2017a)	Binary indicator for having YG-specific staff
PES training (2017)	European Commission (2017a)	Binary indicator for the PES providing training specifically tailored working with youth
PES staff increase (2014-2017)	European Commission (2017a)	Binary indicator for the PES having increased/unchanged staff from 2014-2017
PES has youth-specific targets (2017)	European Commission (2017a)	Binary indicator for the PES having youth-specific targets
The role of the apprenticeship system in the YG		
Share of firms with IVET participants (2010)	Eurostat (trng_cvt_34s)	Share of firms hiring initial vocational training participants, expressed as a % of all firms
Share of apprenticeship offers (2016)	European Commission (2018b)	Number of offers of apprenticeships as % of total offers typically made to participants
Share of timely exits into apprenticeships (2016)	European Commission (2018b)	Number of exits into apprenticeships as % of total timely exits from the YG
School-to-work transition cluster (2005)	Pohl/Walther (2005)	Binary indicator for STW being of type transitional/post-socialist; reference category: missing
		Binary indicator for STW being of type sub-protective; reference category: missing
		Binary indicator for STW being of type universalistic; reference category: missing
		Binary indicator for STW being of type liberal; reference category: missing
		Binary indicator for STW being of type employment-centred; reference category: missing
Number of EAfA pledges (2018)	European Commission (2018j)	Number of pledges to increase apprenticeships by firms or organisations, normalised by the share of firms hiring IVETs

Table 4. Outcome cluster means

	Cluster A	Cluster B	Cluster C	Cluster D
“Coverage” rate (in %)	48.8	7.6	47.9	44.8
Share in preparatory phase beyond four months (in %)	43.3	28.4	60.6	51.9
Share of positive and timely exits (in %)	51.1	74.0	36.6	37.2
Share with positive situation after six months (in %)	57.6	52.1	56.2	6.0
Reduction in youth unemployment (in %-points)	3.7	12.1	14.5	6.2
Reduction in NEET rates (in %-points)	1.1	4.2	4.3	1.8

Note: This table shows cluster means (averages) for a cluster analysis, solely based on the authors’ measures of performance (see section 3.5 for their description). The analysis creates: Cluster A (AT, BE, DK, IT, LT, LU and SE), Cluster B (BG, HU and MT), Cluster C (EL, ES, HR, IE, PT and SK) and cluster D (CY, CZ, DE, EE, FI, FR, LV, NL, PL, RO, SI and UK).

HOW TO OBTAIN EU PUBLICATIONS

Free publications:

- one copy:
via EU Bookshop (<http://bookshop.europa.eu>);
- more than one copy or posters/maps:
from the European Union's representations (http://ec.europa.eu/represent_en.htm);
from the delegations in non-EU countries
(http://eeas.europa.eu/delegations/index_en.htm);
by contacting the Europe Direct service
(http://europa.eu/europedirect/index_en.htm) or calling 00 800 6 7 8 9 10 11 (free-
phone number from anywhere in the EU) (*).

(*). The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

Priced publications:

- via EU Bookshop (<http://bookshop.europa.eu>).

Priced subscriptions:

- via one of the sales agents of the Publications Office of the European Union
(http://publications.europa.eu/others/agents/index_en.htm).

