



RESEARCH PAPER

No 39

Attractiveness of initial  
vocational education and  
training: identifying  
what matters





# Attractiveness of initial vocational education and training: identifying what matters

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Luxembourg: Publications Office of the European Union, 2014

ISBN 978-92-896-1609-6

ISSN 1831-5860

doi: 10.2801/74821

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## Foreword

There are two key factors in this study. The first is that, given the right socioeconomic and cultural environment, initial vocational education and training (IVET) leads to the employability of a wide range of learners. Second, the earlier IVET is introduced into an education system, the more likely it will attract the attention of learners and, if quality is assured, the esteem of a wider range of stakeholders.

This study is a reference point for policy-makers. IVET remains the first important step from being unemployable to employability. In labour markets, which are increasingly demanding skills and competence qualifications, IVET is a major stepping stone in sustainable living, productivity and dignity.

Vocational qualifications are required in European labour markets and constitute about 60% of all medium level qualifications. The future retirement of a large generation of older workers with medium level qualifications creates pressure on IVET to be seen as a promising alternative route to general upper secondary and higher education.

Vocational education and training (VET) has also demonstrated wide benefits to individuals and enterprises, as well as at the level of the whole economy and society. Despite such benefits, it generally lacks esteem when compared to other educational pathways, in particular general upper secondary education.

This research shows that attractiveness of VET is influenced by various endogenous and exogenous factors, some of which might be under control of policy-makers. The wider context in which VET operates, such as the dominant form of industry or the structure of the labour market, as well as prevailing social and cultural norms, are very powerful determinants.

In consequence, 'simply' modernising VET by improving its quality and relevance to the labour market may provide necessary but not sufficient to improving its attractiveness. Perceptions about the value of VET and the likelihood of finding employment after completing IVET are also decisive elements.

Looking at policy measures, it is usually not easy to understand what works, where, and why, because only on rare occasions is a serious impact assessment done; and hard data, or a simple indicator which would be able to measure progress in Europe, do not exist.

This report contributes to a more coherent and deeper understanding of the multidimensional issues influencing VET attractiveness. The aim is to support debate among European policy-makers and help introduce an appropriate mix of policy measures significantly contributing to making, as early as possible, vocational educational paths more attractive for young people in Europe.

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Director

## Acknowledgments

Many individuals contributed to the research described in this report. The Cedefop project supervisor, Maria Hrabinska ensured overall coordination and management of the project. Advice and support were provided by Pascaline Descy, Cedefop Head of Area Research and Policy Analysis. Cedefop is grateful also to Jan Varchola from the European Commission (Directorate General for Education and Culture) for his interest in the study and feedback. Special thanks go to Dmitrijs Kulss, who reviewed the paper. Comments and suggestions provided by Torsten Dunkel in the earlier stages of the project are also acknowledged.

The report summarises findings of the analysis conducted under Cedefop's service contract No 2011-0114/AO/RPA/MHRAB-TODUN-FFERR/IVET attractiveness/003/11 by Cathleen Stasz, Susan Guthrie, Craig Holmes, Hubert Ertl, Sophie Castle-Clarke, Samuel Drabble and Lydia Villaba Van-Dijk from RAND Europe and the ESRC Centre on Skills, Knowledge and Organisational Performance (SKOPE). The team led by Cathleen Stasz was supported by David Raffe, Georg Hanf, Philip J. Ammerman, and Elizabeth Watters who provided expert advice and suggestions. Elizabeth Watters also authored the Ireland case study, presented in this report, and country studies for South Korea and Belgium. Christine Tiefensee contributed to the early stages of the project and in particular to developing the survey. Stijn Hoorens and Michael Frearson provided technical reviews.

The study could not have been carried out without the cooperation of individuals in 32 countries who acted as key informants for gathering information on countries' efforts to increase the attractiveness of IVET.

Thanks go to Eleonore van de Veerdonk (Cedefop) who provided administrative assistance in the project.

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## Executive summary

This research paper addresses the wish to improve the evidence base for policy decisions and actions at national and European Union (EU) level to increase the attractiveness of initial vocational education and training (IVET). It investigates the state of play in EU-27 Member States, plus Norway, Iceland, Switzerland, Australia and South Korea.

The intention is to capture both broad trends across Europe and comparable countries, and to provide more detailed analysis of some policy initiatives in selected countries (the Czech Republic, Denmark, Germany, Ireland, Spain and Finland).

A mixed methodological approach is applied, drawing on both quantitative and qualitative tools, including limited web-based surveys of three groups of stakeholders: guidance counsellors, teachers and trainers, and employers.

The conceptual framework developed for this study is based on a systems approach. In this framework, the attractiveness of IVET is understood as the outcome of interest, influenced by:

- (a) the features of IVET systems that determine outcomes;
- (b) the outcomes of the IVET system;
- (c) the communication of these outcomes;
- (d) cultural, institutional and socio-economic determinants of IVET attractiveness for young people and labour market actors;
- (e) policies aimed at bridging the gap between desired outcomes and measured outcomes of interest.

### Attractiveness of IVET in different countries

It is possible to identify indicators for assessing IVET attractiveness which are related to participation in IVET, image of VET, and relative esteem with general upper secondary education. However, these indicators are not correlated and reflect only some aspects of IVET attractiveness preventing use of one single indicator or a combination of them to give a picture of IVET attractiveness in all circumstances.

Most European citizens think that VET generally – not distinguishing between initial and continuous VET – offers high quality learning (European Commission, 2011a). Furthermore, there is a correlation between the overall impression of VET and perceptions of quality: countries with a high image of VET also tend to perceive that VET offers high-quality learning. However, this should be considered

in the light of the relative esteem indicator, i.e. comparing IVET to general education. In this case, results are much less encouraging: although participation in IVET is typically high relative to general education, esteem is typically lower. Relative esteem appears to be growing in new Member States albeit from a low starting point, but typically declining in Western Europe. The image of VET may be higher among the general public than among young people and employers.

The key indicators identified – relative esteem and participation levels – offer a mixed picture of IVET attractiveness. The indicator on participation indicates that there is a significant trade-off between enrolment in general and vocational programmes at the upper secondary level, although some countries manage to have high graduation rates in both types of programme. In countries with low levels of IVET attainment, there is some evidence that the workforce may be substituting toward tertiary education programmes, while other countries have a relatively low-skilled workforce across both upper secondary and tertiary levels.

Ideally, a good IVET system produces many graduates who go on to enjoy relatively high wages and employment prospects in the labour market. These favourable labour market outcomes should attract a similarly high number of students into these programmes.

No one country performs well across all these measures of IVET outcomes. Of the countries with high graduation rates, there are no examples where outcomes are subsequently high across the board. Scandinavian countries have compressed earnings distributions, which lower the relative premium of IVET graduates compared to those with lower levels of education. IVET graduates from Belgium, have relatively poor employment rates compared to university graduates, while those from the Netherlands have few advantages in either employment or wages when compared to low-qualified workers.

The experience in Eastern Europe falls into two categories. Some countries appear to have relatively successful systems, with earnings and employment advantages over low qualified individuals, and smaller gaps in outcomes compared to university graduates: the Czech Republic, Poland and Slovakia are in this category. In contrast, several countries have much wider wage distributions, with high earnings premia for IVET graduates (over the low-skilled) and university graduates (over IVET graduates). This covers Estonia and Hungary, and to a lesser extent (given available data) Bulgaria, Latvia, Lithuania and Slovenia. The countries also have low graduation rates, which would be consistent with students deciding to follow university routes into the labour market, given the differences in earnings.

Several countries do poorly on almost all measures, which are likely self-reinforcing. From the data available, south European countries largely fit this

description, although Italy and Cyprus are exceptions. Iceland, Ireland and the UK are also at the lower end of most of these indicators where they are available.

It is not possible to identify countries where attractiveness is high on all three indicators identified, so there is no 'single scale' which can be used to identify levels of performance on either outcomes or attractiveness. Further, all countries have issues in relation to both outcomes from IVET and the attractiveness of IVET, but what these are differs between countries. This may be related to differences in context, but could also reflect the choices that different countries have made in terms of their policy priorities.

## Supply and demand drivers affecting IVET attractiveness

The past decade has seen an economic boom followed by a recession in the wake of a global financial crisis. Labour markets have first tightened then experienced significant increases in rates of joblessness, particularly among young people. Everything else being equal, demographic changes have added new pressures on the IVET system. There is a need to meet the demand for skills created by a larger-than-average number of retirees, which is constrained by a fall in supply of young people entering the labour market. In addition, few countries have been helped by current trends in migration. However, increased replacement demand, falling supply of new entrants and relatively low levels of skilled immigration should improve the labour market value of IVET graduates. Therefore, providing the country's system develops in such a way to meet these challenges, these trends should raise the attractiveness of successfully completing IVET.

Across Europe, employment has shifted between occupations most closely connected to upper and post-secondary education (including IVET). Since 2000, there has been a growth of both technician and associate professional occupations and lower-skilled service occupations, while there has been a decline in clerical workers, skilled trades and manual operatives. This trend is projected to continue in the next decade (Cedefop, 2010b). As IVET is closely linked to particular occupations, such structural changes are an important determinant of the attractiveness of particular IVET courses, as they affect earnings and employment prospects of graduates.

There is considerable cross-country variation in the patterns of change. Countries which have seen faster growing technician and associate professional occupations have generally created more high-wage opportunities for IVET graduates. This is moderated by competition from university graduates. However, the recent period following the financial crisis has coincided with falling demand for

these higher skilled intermediate occupations, while lower-skilled service occupations have continued to expand.

These economic, demographic and labour market trends mask wide differences between countries, which, in turn, can affect IVET attractiveness. High unemployment typically affects young people disproportionately, but their employment prospects depend on educational attainment: the low-skilled are generally hardest hit, while university graduates typically do best, reflecting either the premium placed on higher skills or the positional advantage of the well-qualified in securing the finite number of job market opportunities available at any given time. In some countries, having an IVET qualification can substantially improve employment prospects. Countries with proportionately higher numbers of technician-level jobs generally provide, more employment opportunities for upper secondary graduates, including IVET graduates.

An examination of possible relationships between exogenous demand drivers of attractiveness and identified indicators on attractiveness indicates that expenditure on VET is a significant influence on indicators. Per capita expenditure on ISCED 3-4 vocational/prevocational education is positively and significantly related to participation and to relative esteem (as measured by Eurobarometer data; European Commission, 2005). Unemployment is negatively related to participation, though not to other measures of attractiveness. The relationship between migration and demographics and attractiveness is complex, although existing data indicate that relative esteem is negatively correlated with the size of the young population and the old-age dependency ratio.

Viewpoints and perceptions around IVET are likely to influence attractiveness; these viewpoints extend beyond young people. The results show that parents and families, teachers, people from the world of work, and the internet/social media may all be important influences on potential student decision-making and so their perceptions are important. The analysis also demonstrates the importance of setting IVET in the context of other education pathways available, notably general upper secondary education, when considering how it is perceived.

## Policy measures to improve attractiveness

The most frequently mentioned policy measures to improve IVET attractiveness are improvement of permeability and diversity of pathways and programmes, campaigns and improvements to guidance and counselling. However, more countries now report using financial incentives which may indicate that these are increasingly needed to promote engagement in VET during times of financial crisis.

In countries where VET is held in low relative esteem in comparison to general education (such as Ireland, Lithuania and Sweden), policies are mainly directed toward the fundamentals of IVET provision: reducing early leaving from education rate, improving structural arrangements (perhaps to make IVET more coherent and efficient), ensuring that IVET provision is related to labour market needs and providing incentives for engagement in IVET. Where VET is held in high relative esteem (Hungary, Austria, Finland,), countries tend to mention initiatives related to improvements in guidance and counselling, campaigns, skills competitions, and transnational mobility.

Countries also vary in the range of policy instruments adopted, some of which have more leverage in changing behaviour than others. Mandates set rules for compliance, while measures such as campaigns can only encourage individuals to take action. Variation is also seen in the target group, although initiatives typically target multiple actors (both institutions and individuals). Employers are a main policy target, especially in countries where their involvement is weak.

Ten case studies from six countries (the Czech Republic, Denmark, Germany, Ireland, Spain and Finland) have shown diversity of initiatives and approaches employed to increase IVET attractiveness, targeting a wide range of groups and using a range of policy tools. Given the lack of evaluation data, and the importance of contextual factors, it is difficult to single out those policy measures which will be effective across the board. However, it is possible to identify following system characteristics that may be beneficial:

- (a) engagement of social partners in policy development remains an important driver because their involvement helps ensure that IVET is relevant to the labour market. Labour market relevance is also an important driver in student decision-making;
- (b) coordinated, strategic planning across government bodies and social partners can reveal potential synergies and points of complementarity in separate initiatives, offering optimised overall effects;
- (c) decentralisation can support adaptation of national policies to local needs, but can also lead to significant variation in implementation. It is important for policy to be adaptive to local needs, but in a way that does not compromise national aims and vision;
- (d) policy-making around IVET should be viewed in the context of the wider education system, not in isolation. This will contribute to greater parity with general education and support development of more permeable pathways, including from IVET to higher education.

## Conclusions

### **Context matters**

What is clear from this study is that context is crucial to understanding the attractiveness of IVET.

Previous studies on VET attractiveness (e.g. Watters, 2009) have focused mostly on the specific characteristics of the IVET system as drivers of IVET attractiveness: permeability of pathways, the provision of guidance and counselling, opportunities for transition to higher education, standardisation of qualifications systems, or quality assurance. While these endogenous factors are important, this study reveals that a wider range of factors may be crucially important in understanding what makes an attractive IVET system. Exogenous demand drivers, such as the composition and strength of the labour market and expenditure on vocational education, are important, as are wider societal factors such as the views of family members, perceptions about the quality of VET, and norms within countries. Also important is the wider educational context.

The conceptual framework developed for this study is consistent with the evidence found, which supports the need to consider wider drivers of attractiveness, and to consider attractiveness as separate from outcomes. To understand fully all the relationships illustrated in the conceptual framework, more data are needed, particularly on the effectiveness of policy initiatives.

### **Communicating IVET outcomes**

Outcomes are not the same as attractiveness. Although it is likely that an IVET system that produces good outcomes will be more attractive, this is not necessarily the case. The 'objective' quality of an IVET system and the outcomes that it produces are not sufficient to understand attractiveness, for two key reasons.

First, these outcomes and information about IVET need to be communicated. The effectiveness of such communication will influence the way in which IVET is perceived and its ultimate attractiveness.

Second, IVET needs to be considered in the light of what is known about human behaviour. People do not always make 'rational' decisions even when provided with full information, and a wide range of social and behavioural factors can play into their decision-making process. Therefore, the outcomes of the IVET system will be viewed through the lens of social and cultural factors as well as through the filter of communication and information processes, meaning outcomes may not be strongly correlated with attractiveness, as found in this study.

### **Influencing perceptions**

The study provides the following insights into how to influence perceptions of VET:

- (a) when it comes to IVET attractiveness, a key stakeholder is the (prospective) student. To understand how they make decisions on future education paths, more information is needed from students directly. There is current evidence that the labour market relevance of IVET is likely to be one of the most important influences on student decision-making, alongside personal interest in the subject. Perceptions about the likelihood of finding employment after completing IVET are found to be correlated with relative esteem;
- (b) existing campaign and communication efforts often use students and/or people working in the relevant areas as a messenger. This is a combination of 'authority' – people who are already working in the area – and 'similarity' – young people who are like the intended audience. The local level of campaigning, seen frequently, may help to reinforce this similarity element, and make the message even more relevant to recipients;
- (c) the family is the most influential group in student decision-making. As messenger, families are also an important target for information, requiring consideration of what messengers are likely to be relevant for them;
- (d) participation in VET is stable in most countries, even where other indicators on attractiveness vary significantly. This suggests that norms might be a significant driver in IVET participation. Norms can and have been used in campaigns by exposing young people (or other groups targeted) to examples of those involved in IVET and in relevant careers (e.g. in skills competitions);
- (e) the desire to be consistent with previous commitments and actions has implications for the involvement of employers in IVET, suggesting that engaging them in small ways initially might lead to larger commitments down the line. This is seen in some of the incentive strategies. It also has implications for students, suggesting that it may be valuable to expose students to IVET at lower secondary level, or give 'taster' opportunities. Short-term courses, which can then be extended, could also be useful as a low barrier way to engage students in IVET.

## CHAPTER 1.

# Introduction

### 1.1. Background and research questions

The aim of the study is to improve the evidence base for policy decisions and actions at national and EU level to increase the attractiveness of IVET in Europe.

The study, carried out over a one-year period from October 2011, achieves this aim by mapping, comparing and evaluating existing initiatives to increase the attractiveness of IVET, to understand what works, where, and why. The study will also build on a more coherent, deeper understanding of this complex, multidimensional issue, setting IVET in wider economic, social and behavioural context.

The study addresses several research questions:

- (a) scope: how can IVET attractiveness be defined, conceptualised and measured?
- (b) drivers of IVET attractiveness:
  - (i) what are these drivers?
  - (ii) to what extent:
    - are these drivers specific to the IVET system (endogenous)?
    - are they external to the IVET system, either nationally or internationally (exogenous)?
    - can they be influenced by policy (policy levers)?
- (c) perspectives of attractiveness: what are the perspectives of IVET attractiveness among relevant stakeholders in different countries?
- (d) policy efforts and effectiveness:
  - (i) what have been the policy efforts in Member States and third countries to increase IVET attractiveness?
  - (ii) of these policy efforts, what have been the intended outputs, impacts and outcomes, the intervention logic and the perceived and actual effects?
- (e) what works?
  - (i) what does the evidence of policy effectiveness teach us about 'what works' taking into account different types of IVET system, different stakeholder groups, and different country-specific characteristics?
  - (ii) what are the characteristics of successful policy programmes or initiatives in their specific contexts?

The study adopts a conceptual outline, which informs the collection and analysis of relevant data, accompanied by a broad methodological approach comprising qualitative and quantitative methods.

## 1.2. Conceptual framework

The conceptual framework for this study is based on a systems approach or systems analysis as an approach to examining public policy issues, originally developed at RAND through pioneering work by Quade and Boucher (1968) and later optimised by Miser and Quade (1985), Walker (2000) and others. Systems analysis is not a method or technique; nor is it a fixed set of techniques. It is a research strategy, a perspective on the proper use of the available tools, a practical philosophy of how best to aid a decision-maker with complex problems of choice under uncertainty (Quade and Boucher, 1968).

The approach is built around an integral system description of a policy field, in this case IVET. The starting point of the developed conceptual framework is taking the attractiveness of IVET as the outcome of interest of the IVET system, which is influenced by a series of external factors. Walker (2000) explains the basic components of the systems approach. Two sets of exogenous drivers act on the system: external forces outside the control of the actors in the policy domain and policy changes. Both sets of forces are developments outside the system that can affect the structure of the system (and, hence, the outcomes of interest to policy-makers and other stakeholders). Loosely speaking, a policy is a set of actions taken by a government to control the system, to help solve problems within it or caused by it, or to help obtain benefits from it.

The framework follows the structure of the research questions by identifying system characteristics, policy levers and drivers of IVET attractiveness. In this conceptual framework, the attractiveness of IVET is the outcome of interest, which is influenced by:

- (a) the outcomes of the IVET system;
- (b) the communication of these outcomes;
- (c) exogenous drivers of the supply side of IVET attractiveness;
- (d) exogenous drivers of the demand for IVET graduates;
- (e) policies aimed at bridging the gap between desired outcomes and measured outcomes of interest.

The extent to which the outcomes of the system, i.e. the measured attractiveness of IVET, deviate from the desired outcomes steers the policy process. The model is slightly complicated by the fact that it does not treat the system as a black box but posits two stages in the development of the outcomes

of interest: first the outcomes of the IVET system, then the communication of these outcomes. This distinction permits identification of discrepancies that might exist between the objective, measurable outcomes of IVET and the subjective perceptions of different stakeholders. IVET systems which are objectively 'good' or attractive, may not necessarily be attractive to stakeholders when viewed through the lens of wider social, cultural and personal factors.

The endogenous variables in the policy domain are determined by the characteristics of the IVET system and are country-specific. These characteristics may refer, for instance, to the permeability or the mobility of educational pathways, the extent to which the system is accessible for specific vulnerable groups (e.g. low-skilled, disabled, older non-traditional students), or the transparency of qualification schemes (Watters, 2009). These factors are subject to a set of complex causal relations within the IVET system (endogenous drivers), as well as two sets of external factors: policy levers and exogenous drivers.

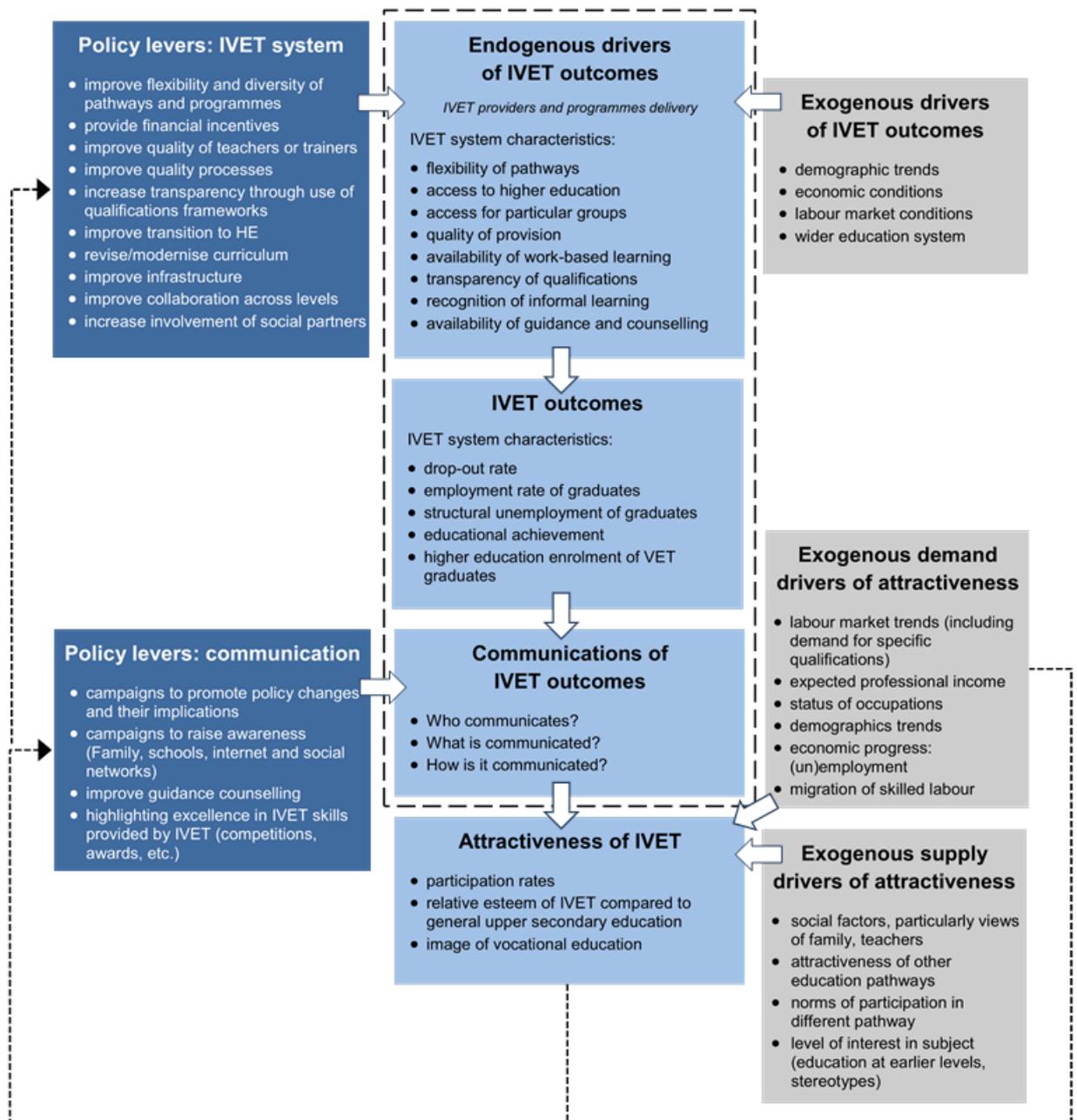
The IVET outcomes in this conceptual framework are those that are relevant for the attractiveness of IVET for the different stakeholders. Indicators that can be used to measure these outcomes may include: the dropout rate of IVET students; the proportion of IVET graduates that are in employment after one year of completion; proportion of students enrolled in higher education programmes with IVET qualifications; differential of starting salaries of employees with and without IVET qualifications (Cedefop, 2009c) <sup>(1)</sup>.

While these outcomes are an important determinant of the attractiveness of IVET programmes, they do not tell the whole story given that attractiveness depends on the perception of the benefits of IVET. Perception is affected by a set of exogenous drivers such as family traditions, peer pressure, social identity, or attractiveness of other education options, but it is also influenced by the way IVET outcomes are communicated. There is significant evidence that the way in which messages are conveyed can affect the way in which they are received (Dolan et al. 2010). To understand attractiveness it is important to understand what these communication strategies have been. These in turn can be affected by policy measures such as highlighting excellence in skills provided by IVET (e.g. skills competitions and awards), branding of IVET courses and programmes (e.g. with terms emphasising technology, learning and career advancement) or the design and conduct of information campaigns.

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<sup>(1)</sup> Data are not available for all these indicators for IVET exclusively.

Figure 1. **Conceptual framework around IVET attractiveness**



Source: RAND Europe and SKOPE.

Two sets of external forces act on the system: external forces outside the control of the actors in the policy domain and policy change (levers). Both sets of forces are developments outside the system that can affect the structure of the system (and hence outcomes of interest to policy-makers and other stakeholders). The framework includes two types of exogenous driver that may affect the attractiveness of IVET: push factors for the supply of IVET students; and pull

factors for the demand for IVET graduates. Push or supply side factors may influence the external motivations of recruits, or potential recruits, but also of other stakeholders such as parents and employers. On the demand side are the pull factors; these can be intrinsic, such as the provision of training and/or qualifications by a particular programme, but also wider exogenous factors, such as labour market trends and social expectations. This part of the framework requires mapping not just the policy landscape but other broader influencing factors such as the economic situation, societal and cultural norms, and the availability of other options in education and training. These can also be divided into factors which influence the outcomes of IVET programmes and those which influence their attractiveness. Factors may be common to both of these, but they are separated as they do not necessarily act in the same way at these two points.

The conceptual framework outlined above treats the IVET system as a monolithic entity. However, there are differences between the national (or even subnational) contexts to which these systems refer. The analysis has to be placed within the broader social, economic and cultural context of the countries included in the study (the EU-27 Member States plus Australia, Iceland, Norway, South Korea and Switzerland). Labour market, economic or demographic trends are context- and country-specific and will therefore have a differential impact on the attractiveness of IVET and the decision-making process of potential learners.

IVET schemes also have multiple objectives, for example economic development or social inclusion. The former tends to be more directly linked to employment and may be employer led, in the form of apprenticeships. However, IVET to improve social inclusion and provide access to training for those who are not in education or employment may not necessarily be directly linked to employment prospects at the end of the training period but might fulfil other important societal functions. There are also likely to be other significant differences in the way these two types of programmes would ideally be constructed and communicated (Watters, 2009).

### 1.3. Research approach

Based on the conceptual framework and the research questions outlined above, the research approach in this study aims to capture both the 'big picture', in terms of the broader trends across Europe and comparator countries, and a more detailed look at some policy initiatives in context in several selected countries.

The first stage of the project focused on the wider overview across countries, developed in stages. A literature review led to the conceptual framework outlined above and helped clarify the scope and definition of the study, as well as exploring

some of the issues related to the heterogeneity of VET provision and European policy measures taken to date.

A review of data sources has been carried out – with particular focus on Eurostat data, and the Eurobarometer survey on vocational education (European Commission, 2011a) – to provide information on the attractiveness of IVET. These sources offer consistent data across a range of countries. The aim here was to gain an initial overview of the level of attractiveness, and an understanding of the indicators of attractiveness that can be explored given the availability of data. The data analysis aimed to understand some of the potential drivers of IVET attractiveness, such as wider economic conditions, the level of unemployment, and investment in education.

This is supported by some qualitative discussion of the factors affecting IVET attractiveness in each country in the individual country fiches.

Country fiches have been prepared, covering the EU-27 Member States, plus Australia, Iceland, Norway, Switzerland and South Korea <sup>(2)</sup>. These have informed the analysis of policy approaches used to date, as described in Chapter 5. The fiches draw on a review of relevant documentary evidence and interviews with high level policy informants in these countries. The aim is to map some of the policy initiatives introduced in the countries to raise the attractiveness of IVET and to see how these differ between contexts, plus to understand some of the drivers of attractiveness in different countries. However, these provide a brief overview of each country and so should be considered as a ‘snapshot’ of some of the key national issues and initiatives.

Three groups of stakeholder have been surveyed: guidance counsellors, teachers and trainers, and employers. The aim of the survey was to understand their perspectives on IVET attractiveness, and the factors that influence student decision-making and their views. The survey draws on, and digs deeper into, some of the issues raised by the recent Eurobarometer survey on this topic.

The second stage of the project has consisted of more in-depth analysis of several policy initiatives through case studies. These are based on review of documentary evidence and interviews with key informants in the relevant countries. The case studies are also supported by some additional investigation of the country in which the policy initiatives take place. This is to help address the crucial issue of context, to understand the extent to which the lessons learned may be transferrable and the motivation behind the policy initiative. A total of 10 case studies have been produced across six countries.

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<sup>(2)</sup> Country fiches are available from Cedefop. They do not form part of the report.

Finally, the findings of each of these approaches have been analysed and synthesised in the context of the conceptual framework outlined above, to produce conclusions and recommendations.

## 1.4. Structure of this report

This report presents the findings of the study into the attractiveness of IVET, presented in the chapters described below.

Chapter 2 sets the definition for IVET used in the study, briefly summarises the EU policy framework around attractiveness, and discusses findings from a literature review on definitions of attractiveness, what affects attractiveness, and measuring attractiveness.

Chapter 3 lays out the wider context for evaluating IVET attractiveness, looking at some of the exogenous variables that might influence attractiveness covering demographic trends, economic conditions, labour market conditions and the wider education system. Measurable IVET outcomes are also discussed.

Chapter 4 explores the level of attractiveness of IVET across Europe and some of the perceptions and viewpoints. It also attempts to develop some initial indicators of attractiveness.

Chapter 5 explores the drivers and IVET outcomes which may be influencing the level of attractiveness in different countries.

Chapter 6 describes the diversity of national policy initiatives to address attractiveness, as well as some initial mapping against the indicators of attractiveness developed in Chapter 4.

Chapter 7 reports on 10 initiatives to raise attractiveness in six selected countries: the Czech Republic, Denmark, Germany, Ireland, Spain and Finland. These studies discuss the country context surrounding the initiatives, to understand better how they are expected to affect attractiveness.

Chapter 8 assesses the relevance of the conceptual framework of IVET attractiveness developed for this study. Areas for further research are outlined and data gaps identified. Broader implications for Europe are briefly discussed.

Annex A provides notes on the quantitative data sets used throughout this report. Annex B includes additional data tables on policy initiatives. Annex C provides further details on a model of behavioural change discussed in Chapter 2.

## CHAPTER 2.

# Scope and definition of the study

## 2.1. Introduction

This chapter provides an overview of literature and policy documents on initial vocational education and training (IVET) and on its attractiveness. It focuses on the scope and the relevant definitions for the study, and on exploring the concept of attractiveness and its applications in IVET. It also presents an overview of the differences between education systems in terms of IVET provision across Europe, addressing the element of the conceptual framework relating to endogenous drivers of IVET outcomes.

### 2.1.1. Defining IVET

#### 2.1.1.1. *Heterogeneity of VET in the EU*

Vocational education and training (VET) is defined and organised very differently in different Member States. This can be due to historical factors, economic situations and political traditions. The way in which VET programmes are delivered can also be substantially different, and these programmes may sit within formal education systems or may be provided through other means, such as in-company schemes, open and distance learning, and a diverse range of informal arrangements (Cedefop, 2004).

This heterogeneity makes understanding attractiveness complex. By focusing on IVET, the problem is somewhat more tractable. Nevertheless, differences across Member States will have a significant impact on what attractiveness means and how it can be developed.

For the purposes of this study IVET follows the definition outlined by the International standard classification of education (ISCED), as follows: 'Vocational education is defined as educational programmes that are designed for learners to acquire the knowledge, skills and competences specific for a particular occupation or trade or class of occupations or trades. Such programmes may have work-based components (e.g. apprenticeships). Successful completion of such programmes leads to labour-market-relevant vocational qualifications which are acknowledged as occupationally-oriented by the relevant national authorities and/or the labour market' (Unesco, 2011, p. 11).

As the study is focused on IVET, it will primarily include the vocational education paths in ISCED 3 and 4. Using this definition ensures consistency in

investigating what is a highly heterogeneous set of approaches to education provision across Europe.

#### 2.1.1.2. *The dual role of IVET programmes*

IVET falls at the intersection between education, both general secondary and tertiary, and the world of work. This affects the way programmes are constructed and deployed, as they are designed not just to meet educational needs but also the wider economic and social needs of a country or region. In the past two decades, the importance of societal pressures and social inclusion in the development of IVET programmes has grown. This has led to a dual role for IVET programmes, with social inclusion goals sitting alongside economy-driven IVET pathways, some of which have significant historical traditions and legacies. This means that goals, governance, organisation and funding mechanisms can differ significantly between these two types of programme. Although diversity can support quality, it also results in a mixed message which can have a significant impact on attractiveness. If the diverse goals and results of programmes are not well understood, they may not be properly valued. Also, where programmes are designed to meet both goals, there may be tensions in how provision can be managed to meet the expectations and needs of all participants (Watters, 2009).

#### 2.1.1.3. *IVET pathways and role of qualifications*

The key overarching aim of IVET is to help learners to develop knowledge, skills and competences that are relevant for future employment. For this, it is important to engage employers and unions in the development of the curriculum (OECD, 2010). The curriculum should also reflect an understanding of the broader economic context in the region or nation, which may be rapidly changing and developing. As skills needs change, IVET schemes need to be flexible and adaptive in response. Similarly, curricula need to consider the different ways in which people learn; different IVET programmes can offer a range of learning contexts and opportunities to reflect this (Watters, 2009).

Although national VET systems are diverse, three types of IVET pathway, which lead to qualifications with currency in the labour market, are prominent across Europe <sup>(3)</sup>. These can be described as follows (Watters, 2009):

- (a) type A: school-based learning with simulated work-based learning, often supplemented by a short work experience placement in a company of around one to four weeks;

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<sup>(3)</sup> Other typologies have also been developed (e.g. Cedefop, 2011a), but these three broad categories seem to capture the main distinctions among programmes.

- (b) type B: school-based learning as in type A, but with a substantial work-based component (e.g. 5 to 10 weeks per year);
- (c) type C: company-based apprenticeship type model, where most learning takes place at work, but this is supplemented by some classroom learning (e.g. one to two days per week, or a short block of school-based learning).

The specific details of programmes within these broad categories may differ between countries (OECD, 2010). In addition, goals, approaches, and attractiveness, will differ for these different types of programmes and for different groups of people.

## 2.2. EU policy framework for IVET

EU education and training policy has received increasing support since the adoption in 2000 of the Lisbon Strategy, the EU overarching programme focusing on growth and jobs. In Lisbon, European leaders expressed their ambition to become the most dynamic and competitive region in the world. However, for this ambition to become a reality, a well-educated and flexible workforce is required to respond to a rapidly changing labour market, driven by such factors as globalisation, innovation and technological development. People will need to be able to adapt to these labour market trends throughout their working life, making high quality VET and lifelong learning fundamental to increased participation and creation of growth and jobs.

Although national governments are ultimately responsible for education and training, EU countries can learn from each other, and have committed to better and more coordinated cooperation. In November 2002, 31 countries and the European Commission signed a declaration in Copenhagen that articulated a strategy to improve the performance, quality and attractiveness of European VET by mutual learning, closer cooperation with, and greater engagement of, governments, social partners and EU institutions across Europe. The progress and priorities towards the goals of the Copenhagen declaration have been assessed and reviewed at two-year intervals: Maastricht (2004), Helsinki (2006), Bordeaux (2008) and Bruges communiqués (2010)<sup>(4)</sup>. Progress has been informed by Cedefop's reports on how countries are moving towards achieving commonly agreed VET policy goals (Cedefop 2004; 2007; 2009a; 2009c; 2010a).

The Maastricht communiqué reviewed the VET priorities outlined in Copenhagen and mentioned explicitly the need to increase attractiveness of VET

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<sup>(4)</sup> Council of the European Union and European Commission (2004; 2006; 2008; 2010).

in Europe. The basis for European policy related to IVET attractiveness was set in the Helsinki communiqué and focuses on four areas: individualisation, opportunities, governance and image (Tchibozo, 2009). Individualisation of VET pathways and delivery entails differentiation in the learning process or place of learning and flexibility, so that individual interests, capacities and inclinations can be accounted for. IVET will be more attractive to potential entrants if they feel that their preferences are considered. Widening opportunities for IVET graduates will also increase attractiveness whether related to further education (access to higher education) or to employment (job opportunities, career development). Guidance plays an important role in making people aware of what IVET has to offer. Good governance can support IVET attractiveness in several ways. It can rationalise the VET offer so that it is coherent and transparent, thereby making it clear to students (to help them make choices), guidance counsellors, and employers. It can support partnerships between VET institutions and other stakeholders, aiding delivery of quality VET in line with the expectations of both students and firms. Local partnerships can ensure VET provision best meets local needs and increase its efficiency and attractiveness. The Helsinki communiqué required action on the image and status of IVET, and recommended policies to encourage excellence in skills (such as world class standards or through skills competitions).

The Bruges communiqué established that, by 2020, VET should be more attractive, relevant, career-oriented, innovative, accessible and flexible, than today and should contribute to excellence and equity in lifelong learning. This second goal is to be achieved by providing attractive, inclusive and high quality IVET, easily accessible and career-oriented continuing VET, flexible systems, a European education and training area, increased opportunities for transnational mobility, and easily accessible and high-quality lifelong information, guidance and counselling services. This, the Bruges communiqué has developed 11 strategic objectives, and 22 short-term deliverables at national level for the first four years (2011-14), with support indicated at EU level (Council of the European Union; European Commission, 2010).

Significant advancements have been made since the Copenhagen declaration in 2002, and important results have been identified (Cedefop, 2010a):

- (a) the European qualifications framework (EQF) was adopted by the European Parliament and Council in 2008 and has been gradually implemented in the EU-27 Member States. The EQF maps out national educational qualifications systems (general and vocational) to a common European reference framework, creating a single framework for transparency of qualifications and competences;

- (b) the European credit system for VET (ECVET) was adopted in 2008. This system will aid recognition of knowledge, skills and competences obtained by people between different learning institutions nationally or while abroad;
- (c) the European quality assurance reference framework for VET (EQAVET) was adopted in 2009. The framework is designed to support countries in the promotion and monitoring of quality improvement in VET.

These advancements serve to improve the quality of VET, which is inextricably linked to attractiveness (Watters, 2009).

### **2.2.1. Wider context: external challenges**

Although education and training in Europe is heterogeneous, countries face similar challenges: global competition, ageing societies, labour market evolution, the need for mobility to release pressure from certain geographical regions, and widening economic and social gaps. These external challenges might impact IVET in several ways:

- (a) increased competitiveness (Cedefop, 2007; 2009c). Although indicators of competitiveness indicate that Europe is doing relatively well as a whole, significant differences exist between countries. Further, if Europe wants to keep growing and maintain at least the same quality of life, its competitiveness needs to improve. Competitiveness is determined by productivity, which is driven by human and physical resources. Workers skills and competences affect the capacity of a country to innovate and respond flexibly to world challenges. However, the share of skilled workers in Europe is not sufficient: important skills shortages are soon expected if Europe does not implement education and training policies to prepare younger and older people to cope with the new challenges;
- (b) ageing society. The workforce in Europe is both shrinking and ageing: the young population (under 49 years) will decline whereas the older population (50-64 years) will increase, thereby increasing the old-age dependency ratio. Such change will have an important impact on the number of students enrolling in IVET at upper, post-secondary and tertiary levels. A reduction in student enrolment might have a double impact: lower employment for teachers and trainers while creating potential labour shortages, making the market much more dependent on older workers, migrants and women returning to work. If education and training does not adapt to labour market circumstances by providing the right skills for younger and older generations, the shortage of skills will slow down growth. Therefore, policy needs to focus on increasing skill levels, providing better access to learning for all, promoting

- people to remain in their jobs for a full working life, and addressing structural unemployment (Cedefop, 2010b);
- (c) labour market pressures. The new economy is driven by innovation and technology, with increasing demand for high-skilled workers. It is predicted that, by 2020, 42.2% of jobs will be in high-skilled non-manual occupations (Cedefop, 2010b). Skills and competences increase productivity and hence the capacity to respond to the increasing competition as a result of globalisation. As Europe cannot compete with certain countries on price, it needs to compete as a knowledge society to produce value-added products and services. However, to achieve this, Europe's workforce must be skilled and trained to respond to labour market needs (e.g. increased flexibility and adaptability) as well as to the quickly changing demands of the changes led by new and emerging technologies. VET has an important role to play by training individuals to acquire appropriate skills and work-related competences, increasing worker motivation and satisfaction as well as increasing productivity to achieve economic growth;
  - (d) mobility. Economic growth occurs at different speeds, creating labour market imbalances (some labour markets exhibit excess demand while others have excess supply) which can be addressed by mobility of workers, within and across countries, from areas of high unemployment to growth areas. Further, skills mismatches are limiting EU capacity for growth (different geographic areas require different skills). To respond to mismatches, mobility is essential for labour markets to operate more flexibly and effectively. VET can limit these mismatches by offering programmes that train people with the skills and competences required from the labour market, and providing appropriate guidance as to what skills are needed for the future;
  - (e) social cohesion and inclusion. There is evidence that knowledge and skills improve social cohesion and inclusion because they increase the probability of finding a job. Positive experience in VET can generate benefits to individuals beyond income and employment, for example by fostering self-esteem, confidence, self-direction and opportunities to learn from others and make new social groups (Cedefop, 2011a). Tailor-made measures for disadvantaged and at risk groups are needed to increase their participation. This role for IVET is growing and creates tension in relation to its role in economic development.

Operating within this wide range of external pressures, it is clear that understanding attractiveness and the factors that affect it may be complex. The next section discusses what attractiveness means and how it can be understood and applied in the case of IVET.

## 2.3. Understanding attractiveness

### 2.3.1. Defining attractiveness?

The concept of attractiveness is complex and difficult to define. Definitions in literature centre on two themes: the subjective nature of attractiveness (in the eye of the beholder) and the factors and characteristics that impact on attractiveness (such as relevance of IVET programmes to the labour market, quality assurance, recognised qualifications).

On the first, Tchibozo (2009) takes the view that, in a weak sense, attractiveness means that VET is of interest to people: they are knowledgeable about it, have curiosity about it, see it as part of the education landscape, have a good opinion of it or its graduates. In a more demanding sense, it is the tendency for people to see the vocational path as a way to reach their personal goals or as a source of recruits for employers. Tchibozo (2009) also notes that IVET attractiveness is cumulative, rising as more people participate in it. However, it should not be confused with participation alone, which also depends on other factors.

For Leney et al. (2004) attractiveness depends on stakeholder opinions; the concept of attractiveness implies that opinions and priorities of various stakeholders have been heard and incorporated into VET policy and programme design. Improving the quality, transparency and accessibility of the education and training on offer will raise its attractiveness, provided such measures are responsive to stakeholder needs. This definition combines the subjective element of attractiveness with factors or measures that increase attractiveness. This study gathered information from 31 countries on measures used to increase IVET attractiveness, though it did not systematically explore stakeholder views <sup>(5)</sup>.

Other studies focus primarily on factors affecting attractiveness. For example, a study on attractiveness from the perspectives of IVET quality and relevance begins with the premise that 'high quality, relevant, accessible, equitable and esteemed VET is attractive' (Watters, 2009, p. 2). Considering evidence from 16 countries, the study notes five conditions that contribute to making IVET more attractive to learners: labour market relevance; access to other education and training opportunities; high status and positive image; reliable and effective information and guidance; and assured quality and relevance.

Similarly, Lasonen and Gordon (2009) note that attractiveness of, and esteem for, VET refer to such factors as improving access and entry to employment,

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<sup>(5)</sup> Case studies of selected countries are used as the evidence base for the remaining studies discussed in this section.

career development and progression, diversity of quality learning environments, willingness to invest in VET, and self-development choices as an individual. Their analysis raises the issue of parity of esteem: attractiveness in IVET is in comparison with general/academic education, which has been assumed to be a more attractive pathway for students and parents.

Parity of esteem is also the theme of a study that examines how a sample of eight countries promoted parity between vocational and general education (Lasonen and Young, 1998). Four approaches are identified which mainly focus on how vocational education sits within the wider education context. Vocational enhancement strategies emphasise the distinctive nature of vocational education with regard to its content and links to employers. Esteem is connected to the high standard of content and pedagogy offered. A second strategy is mutual enrichment, characterised by cooperation between vocational education institutions, enterprises and general upper secondary schools to provide students with a broader range of choices. This preserves the distinctive characteristics of each strand. Countries employing a linkages strategy have attempted to make vocational and academic education more equal by linking both to a common qualifications structure. Under unification, the fourth strategy, vocational and general education are merged to create a single post-16 system, with the aim of abolishing the distinction.

In a report related to the study of approaches to parity, Lasonen and Manning (2001) note that the terms 'attractiveness' and 'esteem' are related to behaviour or to attitudes held by individuals or groups. Because these concepts were beyond the scope of their investigation, the focus is on the 'standing' of vocational education, a more objective term related to education levels and achievements. The research examines how to improve the standing of VET in relation to general education. It identifies three criteria for assessing the quality of VET: competence (including skills), educational mobility, and occupational mobility. They propose a model of high 'standing' would include several characteristics: acquisition of key competences (combining vocational and general education); opportunity for access to academic and vocational higher education, and qualification for entry to high-skilled employment. The kinds of measures or initiatives include promoting links with higher education and with employers, raising the status and qualifications of vocational teachers, and improving the VET curriculum.

The PAVE project, on promoting the attractiveness of vocational education, involved case studies in five countries (Trant et al., 1999). It investigates the tension between vocational and liberal (rather than general) education, traces the evolution of these concepts and explores ways of reconciling the two. The approach includes interviews and questionnaires with individuals in schools (teachers, students) to gain insight into parity of esteem. It looks at how

communication about VET programmes can be used to raise esteem and argues for a view of vocational and liberal education as complementary aspects of broader human development. Like other studies it suggests that quality is an important factor in raising esteem, especially ensuring that VET graduates are able to pursue higher education.

Siikaniemi (2005) uses a case study of the metal industry in Finland to integrate three theories about career choice into one framework to develop a model of attractiveness. Attractiveness of education and career is defined as ‘the interplay of contributors to and detractors from the individual career choice and development process, which guide the individual towards satisfaction with vocational and career pathways’ (Siikaniemi, 2005, p. 18). The focus is on contextual influences and an individual’s interaction with the environment. The model argues that attractiveness results from three action phases: education and career choice, process of education and training, and transition from school to occupation. Each phase can be affected by elements of attractiveness that contribute to, or detract from, the overall attractiveness of an educational field or career (including individual, social system, school, and the world of work). In this view attractiveness cannot be understood only in terms of the entry phase (decision to enrol in IVET) but must encompass the educational programme through to the beginning of work.

Three key groups of intrinsic factors have been distinguished that affect the innate attractiveness of an educational pathway:

- (a) schooling content and context: this includes a range of factors such as the selectivity of access and how this is linked to status; the social origin of students; institutional control; the reputation of the school or programme; measures to ensure quality assurance and transparency; the involvement of employers; and the relevance of the scheme. All these factors influence the quality, or perceived quality, of a programme, which affect its attractiveness;
- (b) economic determinants: what economic (dis)incentives exist as part of a programme (e.g. tuition fees and relevant tax arrangements)? Aversion to loss is more significant than the prospect of gain (Dolan et al., 2010), so it may be that the tuition fees serve to lessen attractiveness;
- (c) student education and labour-market expectations and prospects: includes such factors as the existence (or not) of possibilities for further education and career development following (or during) the IVET programme; the presence of wider training such as ICT and foreign languages; and other broader factors surrounding the breadth and scope of the learning experience available.

An assessment of the intrinsic merits of a particular scheme or programme will not provide a full view of its attractiveness. IVET needs to be set in the wider context that considers external influences, such as:

- (a) wider economic determinants. For example, effects of the current economic downturn, which may have reduced the availability of employment options and training opportunities, but will also impact the demand for and supply of skills. Economic determinants will have differing levels of impact not only between Member States but between different towns and regions within countries;
- (b) wider social determinants. Includes such factors as social and cultural perceptions of IVET and related career trajectories; the relative status of IVET compared to other education and training pathways; the expectations of society and the closer community including family and peers;
- (c) personal expectations. This includes behavioural determinant factors, such as moral norms or habits, which govern personal expectations and sense of self-worth and may influence the attractiveness of different career and education pathways;
- (d) availability of information. Factors intrinsic to programmes will not be significant in decision-making processes if the information is not available. Information could be made available through a wide range of avenues, from schools, to personal and family links, and other formal or informal networks.

This study also takes the view that attractiveness is subjective, assessing external conditions from different perspectives. The student, for example, makes a decision to enrol or not enrol in a programme. The employer decides whether to hire graduates of IVET programmes or whether to be involved in delivery of IVET schemes (e.g. offer an apprenticeship). Part of this study is to improve understanding of the factors that affect these decision-making processes: to do this it draws on literature on determinants of human behaviour to understand dimensions of IVET attractiveness.

### **2.3.2. Determinants of viewpoints on attractiveness**

Many theories and frameworks have been developed to explain human behaviour. One of the most widely used is the theory of planned behaviour (Fishbein and Ajzen, 1975), which has been the basis of many studies and, subsequently several critical reviews and meta-analyses of its precepts (Ajzen, 1987; 1991; Foxall, 1983; Sheppard et al., 1988). This framework provides helps to consider models of behaviour change, and to ground the notion of IVET attractiveness as linked to the decisions and actions of different actors (e.g. students, employers, and teachers).

In its simplest form, Ajzen's theory of planned behaviour (Ajzen, 1991) states that the immediate antecedent of any behaviour is the intention to perform certain behaviour. Several determinates of intention may be important: attitude is the degree to which a person has a favourable or unfavourable opinion of a behaviour; social norm is perceived social pressure to perform or not perform a particular behaviour; habit is past behaviour as a determinate of future behaviour; affect versus evaluation is doing something due to emotional motivations instead of as the result of cognitive reasoning; and moral norms are social pressures/norms and personal feelings of moral obligation.

MindSPACE is a behavioural change model specifically adapted for use in a policy context (Dolan et al., 2010). It captures some of the most robust factors influencing behaviour, many of which are analogous to the determinants just discussed. These are laid out as a mnemonic that is intended to be used as 'checklist' when making policy.

Table 1. **Factors influencing behaviour**

1. Messenger	we are heavily influenced by who communicates information
2. Incentives	our responses to incentives are shaped by predictable mental shortcuts such as strongly avoiding losses
3. Norms	we are strongly influenced by what others do
4. Defaults	we 'go with the flow' of pre-set options (similar to habit)
5. Salience	our attention is drawn to what is novel and seems relevant to us
6. Priming	our acts are often influenced by subconscious cues
7. Affect	our emotional associations can powerfully shape our actions
8. Commitments	we seek to be consistent with our public promises, and reciprocate acts
9. Ego	we act in ways that make us feel better about ourselves (similar to moral norms)

Many of these could be important in the context of IVET attractiveness. For example, importance of the messenger (who communicates the message); incentives (e.g. financial packages aimed at attracting students or employers to participate in IVET); defaults (tendency to take the path of least resistance); and priming (the context in which the message is communicated). Further detail on each of the mindSPACE dimensions is presented in Annex C.

Other studies also address behavioural elements related to IVET attractiveness. Watters (2009) reports that the image of IVET can be improved through information presented in an attractive way, including use of the internet, (involving young people and employers in web-based design and content development) and use of successful IVET graduates as 'role models'. Other actions to promote a positive image to make IVET more attractive are skills demonstrations and awards for learners, teachers and institutions. Employers can

improve the image of IVET pathways by sponsoring advertising campaigns and promotional events. The report also notes the importance of the messenger: learners often perceive IVET through their parents' eyes. Parents may have out-of-date images of IVET that do not reflect, for example, the technological changes in traditional occupations or new occupations in such fields as green energy, media or sports.

Research in other areas, such as public health, can contribute to understanding IVET attractiveness. For example, it suggests that campaigns to raise awareness are not always sufficient to bring about changes in behaviour or in attitudes. Similarly, media campaigns alone tend not to be as effective as approaches with a wide range of initiatives. Single-stranded approaches to increase attractiveness are unlikely to be successful. Different messages can be more effectively communicated depending on the target audience and the desired response, by different people or groups. Regional or even local programmes can more effectively target and deliver initiatives which meet the needs and reflect the attitudes of their target group (Rabinovich et al., 2010). There is no 'one size fits all' for stimulating IVET attractiveness.

## CHAPTER 3.

# Wider exogenous drivers affecting IVET outcomes

In line with the conceptual framework, this chapter examines the following four exogenous drivers having impact on IVET outcomes: macroeconomic conditions, demographic trends, labour market features and the wider education system. Analysing available data on IVET outcomes the chapter finds few consistent patterns of success.

Details of the calculation of these data and figures are presented in Annex B.

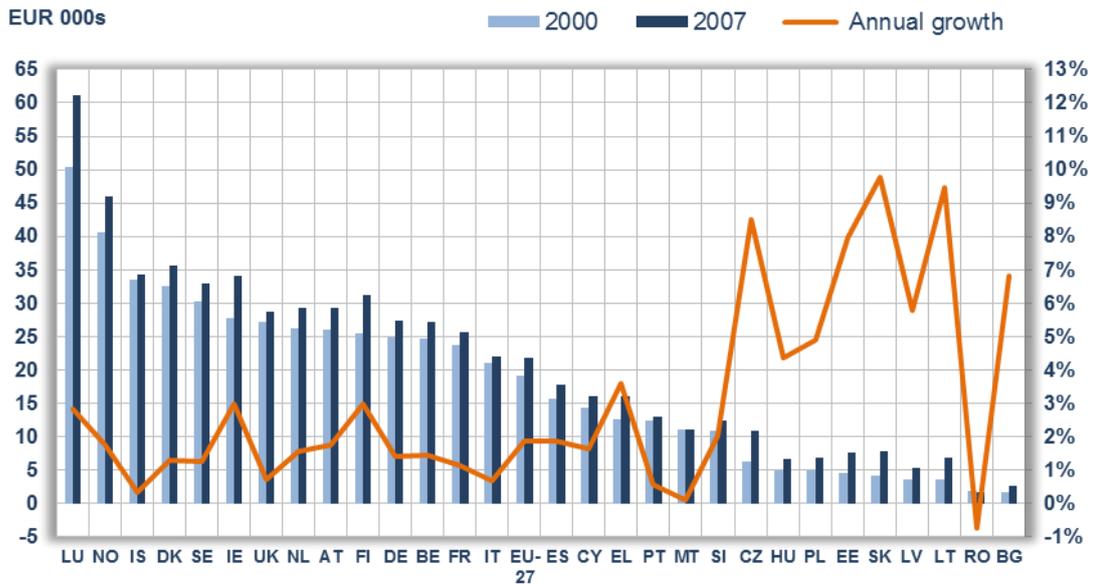
### 3.1. Exogenous drivers of IVET outcomes and attractiveness

The conceptual framework highlights the role of exogenous drivers which affect both the outcomes of an IVET system and its attractiveness; there is considerable overlap between the two. In some cases, attractiveness increases because exogenous factors have driven improvements to IVET outcomes. However, at other times certain trends may worsen IVET outcomes in absolute terms, but affect attractiveness through its relative standing, as when economic downturn worsens employment prospects and exerts downward pressure on wages. However, IVET graduates may be relatively better off – and entering IVET may appear more attractive – if less qualified groups are disproportionately affected. Therefore, while these drivers are discussed together in this section, the separate effects on outcomes and attractiveness are drawn out.

#### 3.1.1. Economic climate

The past 11 years have seen two distinct phases in economic development. Between 2000 and 2007, most European economies experienced real economic growth: Figure 2 compares real GDP per capita between 2000 and 2007, showing that growth occurred across countries of all income levels. There was above average growth for a small number of high-income countries (Ireland, Luxembourg and Finland) and high growth rates for many lower-income countries (particularly the Czech Republic, Estonia, Lithuania and Slovakia). West and south European countries generally experienced less rapid growth, Greece being the notable exception.

Figure 2. Real GDP and annual growth, 2000-07 (2010 prices)

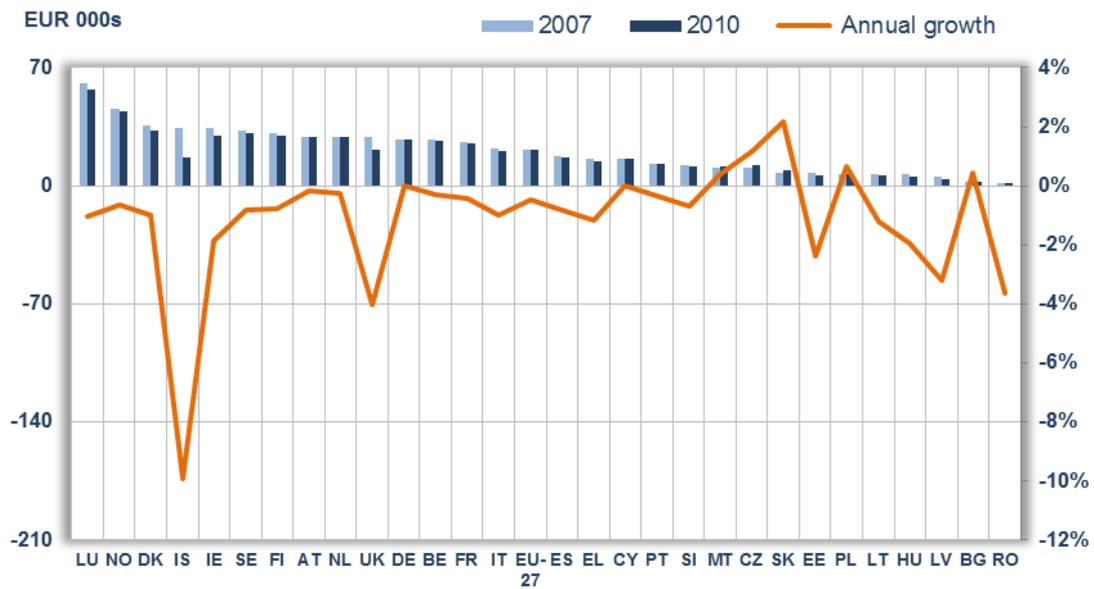


NB: Countries included: EU-27, Iceland and Norway.  
 Source: Eurostat/UOE.

Since 2007, the global financial crisis and the subsequent recession have had differentiated impacts across Europe, as shown in Figure 3. Several countries have experienced severe drops in real GDP, such as Iceland, Ireland and the UK, with less severe, but still significant drops in many other north, west and south European countries, including Greece, Spain, Italy and Portugal. In contrast, Germany, the Netherlands and Austria had much less severe recession, with Germany growing over the three-year period to 2010. In eastern Europe, the effects were more mixed. Some countries achieved real growth, such as the Czech Republic, Poland and Slovakia, while several others (most noticeably Estonia, Latvia, Hungary and Romania) experienced falling output.

The level of national output affects IVET systems in several ways. First, the level of demand for goods and services directly affects the demand for labour, including skilled labour. Labour market conditions tend to be more favourable when aggregate demand and output is high and growing.

Figure 3. Real GDP (2010 prices) and annual growth rates, 2007-10



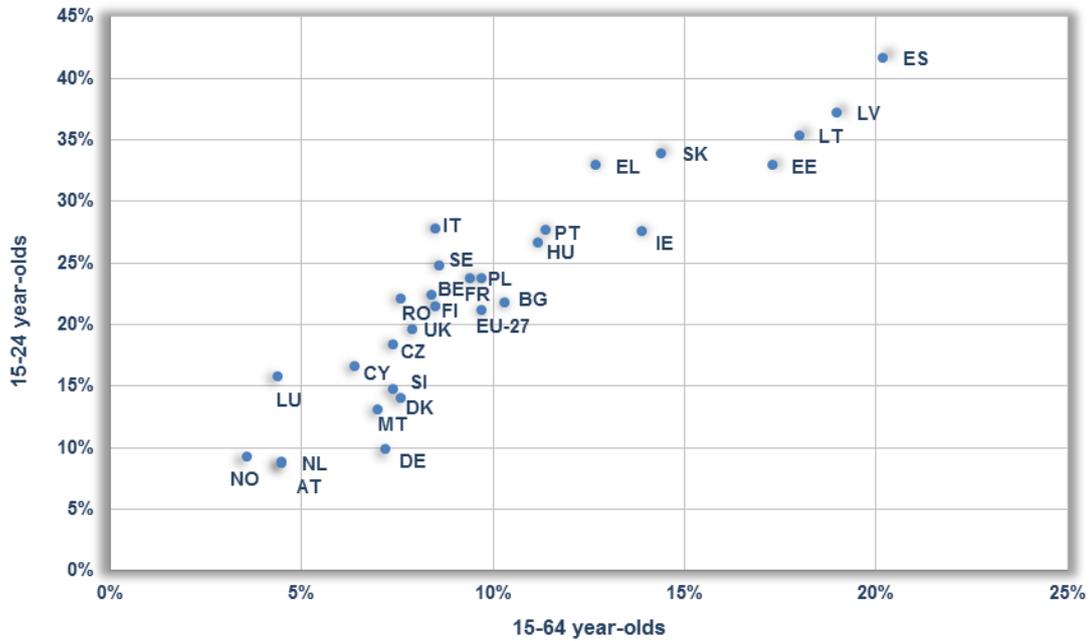
NB: Countries included: EU-27, Iceland and Norway. Data missing for Australia, South Korea and Switzerland.

Source: Eurostat/UOE.

Youth employment and unemployment tends to be particularly sensitive to changes in the total demand for labour <sup>(6)</sup>. Figure 4 compares unemployment rates for young people (age 15-24) and the entire working age population (age 15-64). The correlation is strongly positive ( $r=0.918$ ,  $p\text{-value}=0.000$ ), and the gradient is greater than one. Therefore, the labour market faced by IVET graduates depends on the state of the economy more than the average worker. There is an absolute effect on attractiveness through youth unemployment rates: high unemployment rates make all decisions to stay on beyond compulsory schooling less attractive as job opportunities are fewer. There is also a relative effect if certain types of labour market entrant (IVET graduates, university graduates, those who leave at the end of compulsory schooling) are affected in different ways. For example, during a recession an IVET graduate may have a less than proportionate drop in employment prospects compared to a graduate from general upper secondary education, making the decision to enter an IVET programme more attractive.

<sup>(6)</sup> See Bell and Blanchflower (2011) for an evaluation of the current recession's short and long-term effects on youth unemployment.

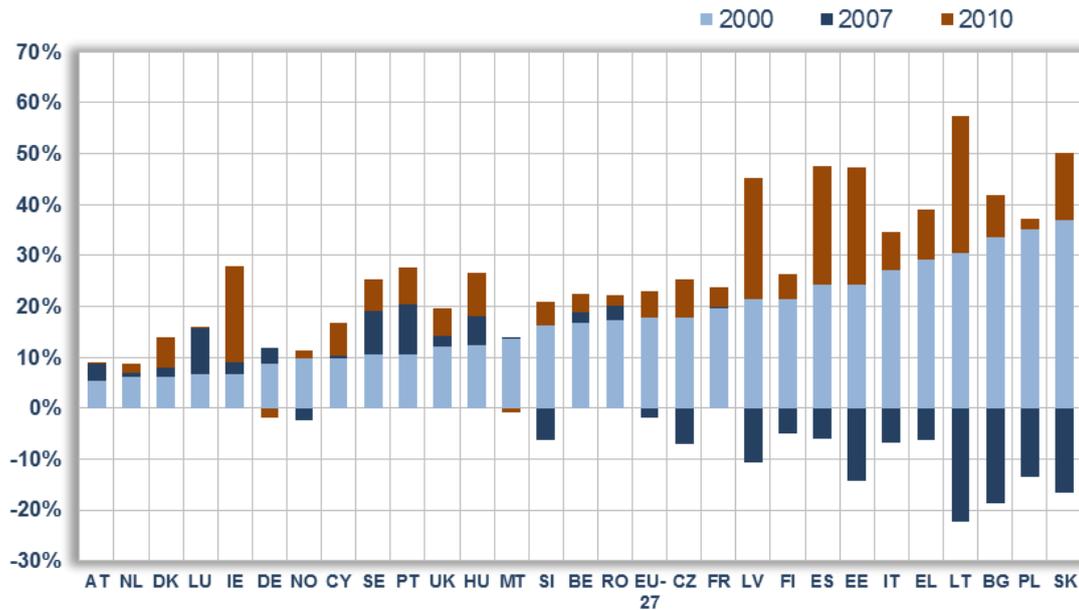
Figure 4. Unemployment and youth unemployment, 2010



NB: Countries included: EU-27 and Norway. Data missing for Australia, Iceland, South Korea and Switzerland.

Source: Eurostat/EU-LFS.

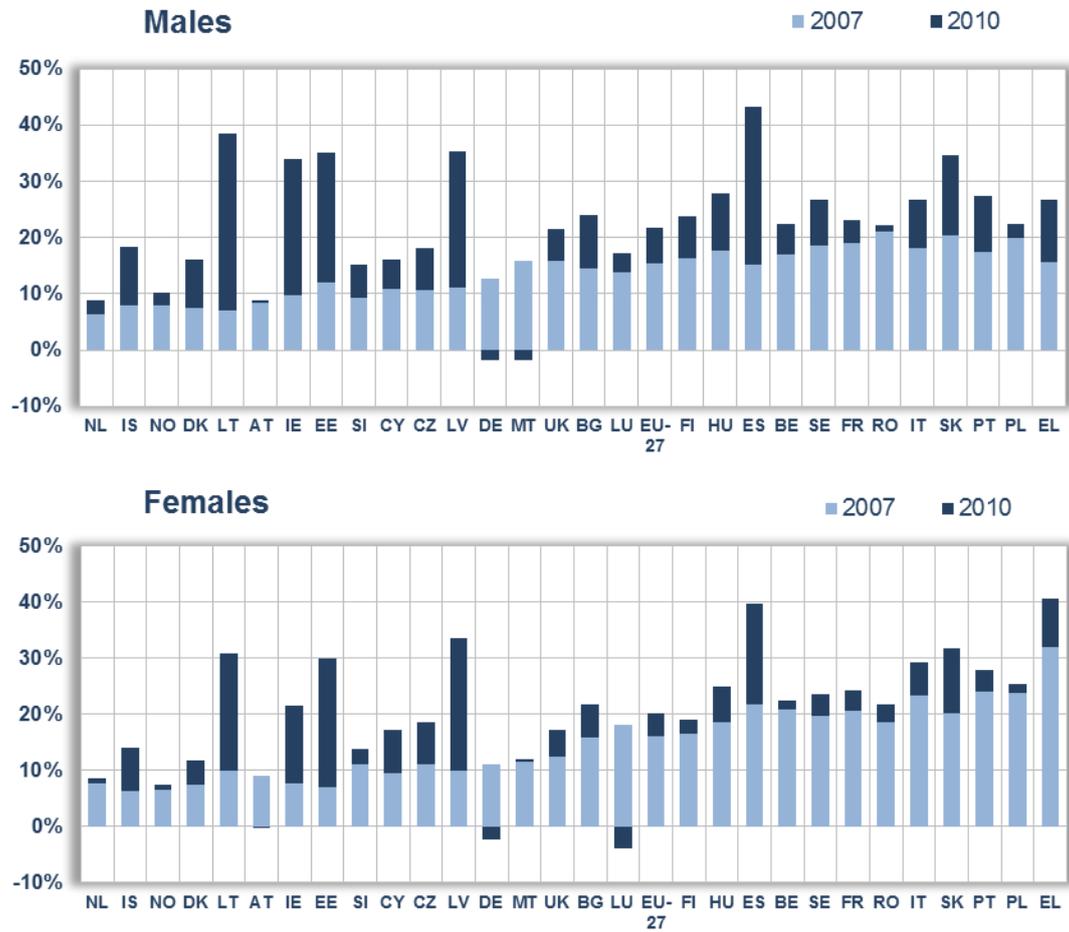
Figure 5. Unemployment rate for 15 to 24 year-olds, 2000 and change in unemployment rate, 2000-07 and 2007-10



NB: Countries included: EU-27 and Norway. Data missing for Australia, Iceland, South Korea and Switzerland.

Source: Eurostat/UOE.

Figure 6. Unemployment rate for 15 to 24 year-old males and females, 2007-10



NB: Countries included: EU-27, Iceland and Norway. Data missing for Australia, South Korea and Switzerland.

Source: Eurostat/UOE.

Figure 5 shows unemployment rates for 15 to 24 year-olds in 2010, as well as the patterns of change in these rates pre-crisis (2000-07) and post-crisis (2007-10) respectively.

The figure shows that, before the crisis, there was some convergence across Europe in youth unemployment, particularly in Eastern Europe. Other countries with lower initial youth unemployment seem to have experienced a mild worsening of the employment prospects of young people during this time. Post 2007, the worst affected countries have been Estonia, Ireland, Greece, Spain, Latvia and Lithuania. Only three countries – Germany, Malta and Austria – did not see youth unemployment increase between 2007 and 2010

Increases in unemployment across Europe have affected male and female members of the labour force differently. Figure 6 shows changes in unemployment

rate by gender: male unemployment was generally lower before the crisis and has increased by greater proportions between 2007 and 2010.

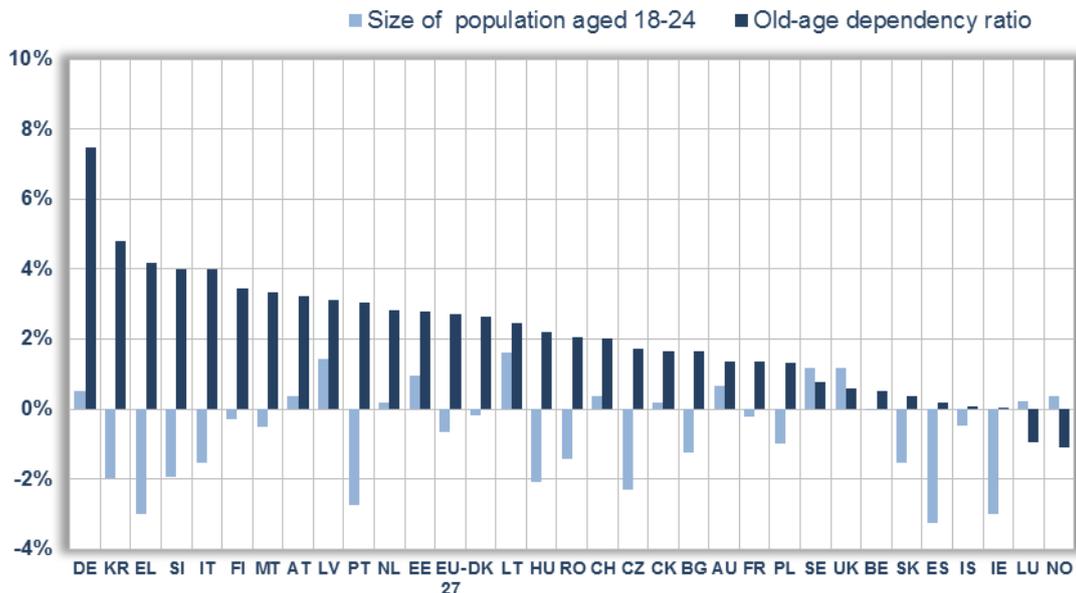
The second effect of the economic climate on IVET is related to public finances, with one consequence of the financial crisis and subsequent recession being that many countries need to consolidate their fiscal positions. This has been most noticeable in countries that have received EU financial support to meet their debt obligations. Some countries, such as Ireland, Greece and Portugal, have introduced austerity measures as a condition of financial support. Others – Germany and the UK being the main examples – have introduced austerity programmes on a more discretionary basis in an attempt to stave off such debt crises. These constraints, where mandatory or more voluntary, may limit future policy interventions and place constraints on the existing system; if austerity measures lead to falling pay for public sector employees, VET providers may be unable to retain their most able teachers. For example, in Romania austerity measures have led to a 25% cut in public sector wages.

### **3.1.2. Demographic trends**

The workforce of most European countries is ageing. Figure 7 shows that the old-age dependency ratio – the proportion over 65 to the working age population – has increased in every country except in Luxembourg and Norway. Across all EU-27 Member States, the ratio has increased from 23.2% to 25.9%. This is caused by more people retiring relative to new labour market entrants, coupled with rising life expectancy in retirement.

This will bring increased pressure to replace skills lost from the labour force by those retiring, as the outgoing generation of workers is larger than new entrants. The retirement of the baby-boom generation is one cause of this change. Therefore, the demands placed by the labour market on education and training, and on IVET in particular, will reflect skills previously supplied by those workers. Some countries have also experienced a fall in the population of the incoming generation of new labour market entrants (Figure 7). In these countries, there may be longer-term imbalances between retirees and new entrants, beyond the retirement of the baby boomers.

Figure 7. **Changes in the old-age dependency ratio, 2000-10**



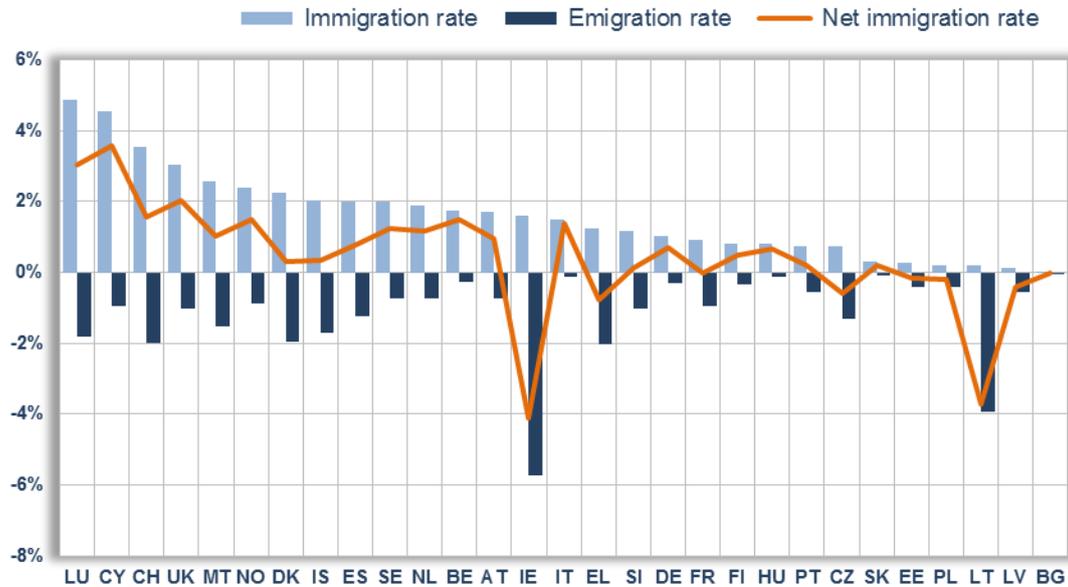
NB: Countries included: EU-27, Australia, Iceland, Norway, South Korea and Switzerland.  
 Source: Eurostat/UOE.

Economic migration may help to bolster the labour and skills supply of a country facing demographic challenges. However, it is not simply a headcount. Immigrants trained or educated elsewhere could help a country meet its skills requirements but if they are lowly skilled or relatively unqualified, this could place additional demands on the VET system. Looking only at net immigration does not show the full picture; what matters is the absolute number of immigrants and emigrants and whether, in terms of skills, immigrants and emigrants are close substitutes. Figure 8 shows immigration and emigration rates for 15 to 24 year-olds as separate from the net immigration rate of this age cohort.

Most countries in Europe had positive net migration in 2010 <sup>(7)</sup>. The three main counter examples are Ireland, which has a high rate of emigration (as well as a relatively high level of immigration), Greece and Lithuania, with a moderate level of both immigration and higher emigration, and then several east European countries, where both immigration and emigration rates are very low.

<sup>(7)</sup> The origin of non-EU immigrants is largely country-specific. East European countries have higher levels of migration from Russia and former (non-EU) Soviet States. Spain has high levels of immigration from Central and Latin America.

Figure 8. Immigration, emigration and net migration rates, 2008, 15 to 24 year-olds



NB: 2010 immigration rate figures used for Bulgaria, Hungary, the Netherlands and Poland. Countries included: EU-27, Iceland, Norway and Switzerland. Data missing for Australia, Romania, and South Korea.

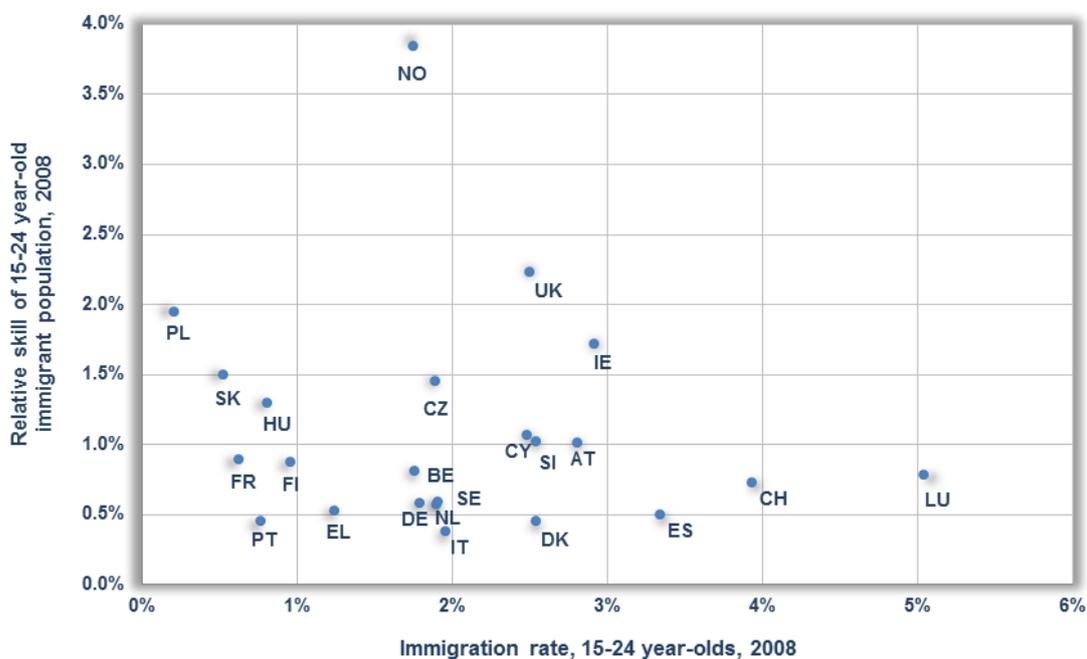
Source: Eurostat/EU-LFS; Eurostat/UOE; OECD.

Figure 9 looks at how immigration rates for 15 to 24 year-olds compare to the skill level of the immigrant population for that cohort. Data on educational attainment were collected in the 2008 EU labour force survey special module on the labour market outcomes of immigrants. The relative measure of skill used in Figure 9 gives the ratio of young immigrants at ISCED 3-4 to those at ISCED 0-2. Higher scores suggest a more highly-skilled immigrant workforce. Data for higher education (ISCED 5-6) were incomplete, so the comparison was made between low- and medium-skilled groups. This was supplemented, where necessary, by OECD data on the education level of immigrant workers from 2000 census data. Figure 9 shows three groups of countries. Some countries have low gross immigration (below 1.5%). Others have a large inflow of higher-skilled workers (immigration rate above 1.5%, relative skill measure greater than one). In these countries, although immigration rates are higher, a greater proportion of workers are medium-skilled than low-skilled. The Czech Republic, Ireland, Norway and the UK have a greater proportion of higher-skilled young immigrants than most countries with comparable inflow rates<sup>(8)</sup>. A third group is countries with large

<sup>(8)</sup> We do not analyse the reason for these differences. However, it seems likely that policy differences (such as the UK's points system to limit the inflow of low-skilled labour) may have played a role here.

inflows of lower-skilled workers (immigration above 1.5%, relative skill measure below one). Denmark, Germany, Spain, Italy, the Netherlands and Portugal have the highest proportion of low-skilled immigrants, while Spain, Luxembourg and Switzerland have low skill levels and particularly high immigration rates.

Figure 9. Immigration rates and skill levels of immigrants



NB: 2010 immigration rate figures used for Belgium and Greece. OECD skill level figures used for Finland, Norway and Slovakia. Countries included: EU-27, Norway and Switzerland. Data missing for Australia, Bulgaria, Estonia, Iceland, Latvia, Lithuania, Malta, Romania and South Korea.

Source: Eurostat/EU-LFS; Eurostat/UOE; OECD.

Everything else being equal, demographic changes have added new pressures on the IVET system. There is a need to meet the demand for skills created by a larger-than-average number of retirees, which is constrained by a fall in supply of young people entering the labour market. Few countries have been helped by current trends in migration. Some have benefitted from higher-skilled inward migration, but a much larger group has experienced either low levels of migration, or high levels of lower-skilled migration.

However, increased replacement demand, falling supply of new entrants and relatively low levels of skilled immigration should improve the labour market value of IVET graduates. Providing the country's system develops in such a way to meet these challenges, these trends should raise the attractiveness of successfully completing IVET.

### 3.1.3. Labour market trends

The demand for certain skills has altered significantly over recent decades, affecting individuals. For IVET graduates at ISCED 3-4, the volume of jobs in the middle of the skill distribution is particularly important, as shown in Figure 10.

Figure 10. **Employment share across EU-27 Member States, 2007, workers at ISCED 3-4**



NB: Occupations coded by single-digit ISCO groups.  
 Source: Eurostat/EU-LFS.

Figure 11 shows the average change in employment shares across Europe in the five most common occupation groups for ISCED 3-4 workers. Changing demand for managerial and professional occupations is less relevant, as these are more likely to be accessed via completion of higher education; elementary occupations, agricultural workers and those in the armed forces are also less relevant.

Figure 11. **Changing occupational structure across EU-27 Member States, 2000-11**



NB: Occupations coded by single-digit ISCO groups.  
 Source: Eurostat/EU-LFS.

Figure 11 illustrates the phenomenon known as 'routinisation' (Autor et al., 2006) where occupation structures have shifted away from 'routine' occupations (such as administrative clerks and semi-skilled process operatives) and towards 'non-routine' work (including highly-skilled technicians and associate professionals, and lower-skilled service occupation workers). This is sometimes also referred to as polarisation (Goos and Manning, 2007) as the declining occupations have tended to be associated with middle-wage, middle-skill work. This leads to a 'hollowing-out' of the labour market as occupational growth takes place in higher-wage and lower-wage occupations <sup>(9)</sup>.

Figure 11 shows the change in employment shares of occupations before and after the 2007 global financial crisis. While non-routine occupations have grown over the period, the post-2007 European labour market has seen a large growth in service occupations, and a small decline in higher skill intermediate occupations <sup>(10)</sup>.

These trends are largely exogenous: they are connected to technological progress (where capital can replace labour for particular types of routine occupation) and globalisation (where certain jobs can be off-shored to countries with lower labour costs). However, there is variation in these patterns across countries and Figure 12 shows the changes in these occupational group employment shares by individual Member States. Due to space constraints, clerical workers, craft and trade workers and plant and machine operators are grouped together.

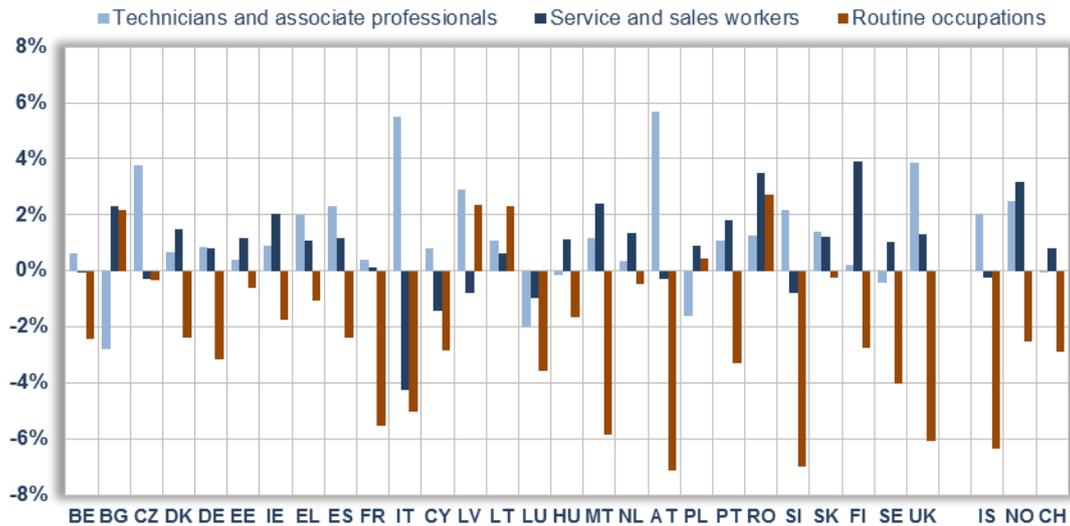
Most countries have shifted away from routine occupations, although three countries – Bulgaria, Luxembourg and Poland – had a declining number of technicians and associate professionals between 2000 and 2007, while a number had fewer service occupation workers. Several east European countries – Bulgaria, Latvia, Poland and Romania – saw a rise in the employment share of routine occupations during this time.

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<sup>(9)</sup> Cedefop (2011b) discusses the emergence of this phenomenon across Europe between 1998 and 2008. Goos et al. (2009) find that the same trends observed in the US and the UK in the 1980s began to be observed across mainland Europe in the early 1990s and attribute the changes largely to patterns of demand for routine and non-routine tasks.

<sup>(10)</sup> These trends are predicted to continue between 2010 and 2020 (Cedefop, 2010b).

Figure 12. **Changing occupational structure by country, 2000-07**



NB: Countries included: EU-27, Iceland, Norway and Switzerland. Data missing for Australia and South Korea.

Source: Eurostat/EU-LFS.

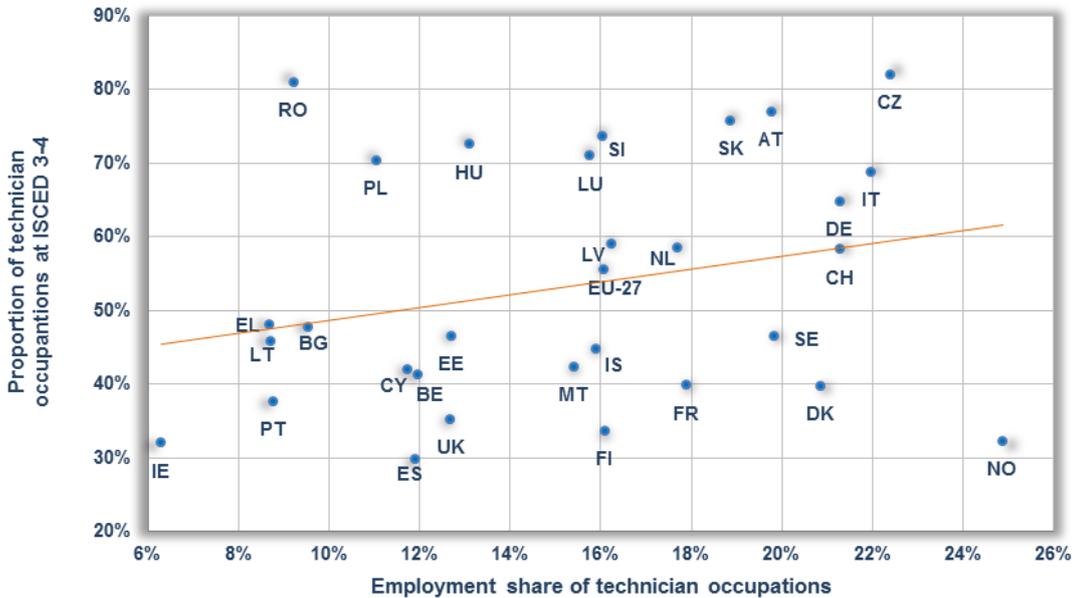
These shifts affect demand for skills on the labour market. Countries which have experienced a larger reduction in the employment share of skilled trades will need to produce fewer IVET graduates or apprentices in these jobs. Social care and retail training courses or apprenticeships may become increasingly relevant in some countries, while the increase in demand for technician level manual skills requires higher levels of vocational training attainment. IVET systems need to respond to these changes to avoid skills mismatch. In addition, occupations do not have fixed skills demands and occupational groups can cover a range of skill levels. A growth in employment for technicians, broadly defined, may correspond to particular types of job (at particular levels of skill or in particular fields) which fit into this category, which then passes on issues of skill match and mismatch.

These changes feed directly into the attractiveness of IVET: a system that produces mismatch is less attractive than one where students can see links between their training and eventual employment.

The occupational structure of the labour market matters for IVET attractiveness because courses are linked to particular sectors or occupations. Employment opportunities and earnings for graduates of craft trade courses, for example, are likely to be lower, all other things being equal, in countries where such jobs have declined significantly. The growth of higher-skilled jobs, which traditionally recruit heavily from university graduates, will lower the relative attractiveness of IVET compared to higher education as employment prospects and earnings improve in those occupations. In contrast, an increase in service

sector jobs and service occupations will improve the attractiveness of courses in retail or tourism.

Figure 13. **Employment share and composition of technician occupations, 2007**



NB: Countries included: EU-27, Iceland, Norway and Switzerland. Data missing for Australia and South Korea.

Source: Eurostat/EU-LFS.

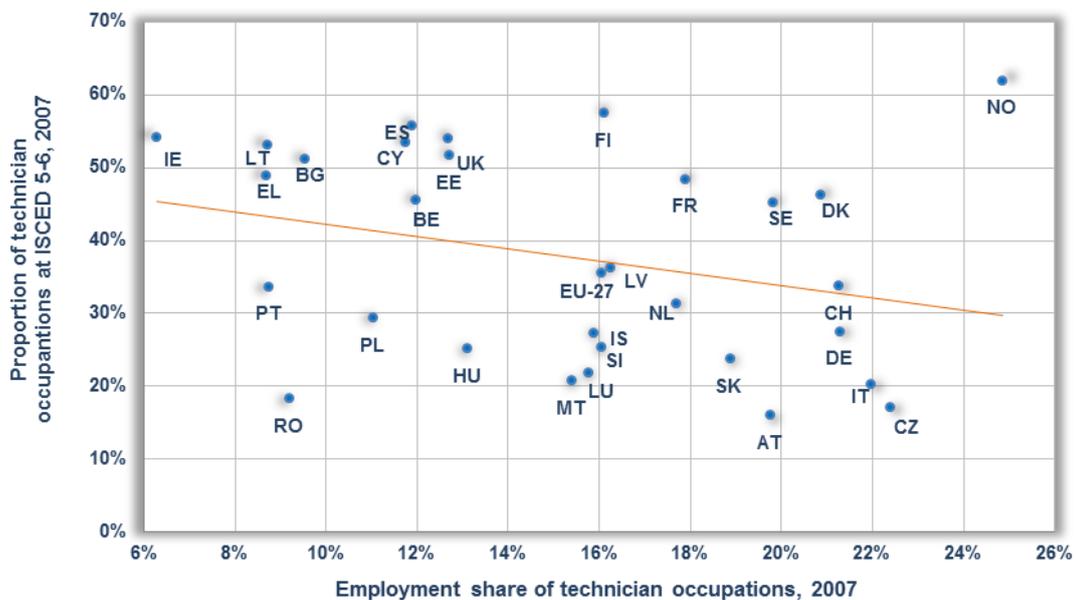
This will be mitigated by the way that the labour market views other qualifications (such as general programmes at secondary and university level). For example, the growth in technician-class jobs will create employment opportunities for IVET graduates providing that these jobs are not taken up by university graduates. Figure 13 shows the relationship between the employment share of technician and associate professional occupations in the labour market, and the proportion of those workers who have ISCED 3-4 qualifications <sup>(1)</sup>. Across Europe, there appears a positive correlation between the volume of technician class jobs, and the likelihood of such jobs going to workers with ISCED 3-4 qualifications. Similarly, there is a negative relationship when looking at the proportion of university graduates in these jobs as their total number increases. However, there is considerable variation around these trends, leading to a relatively weak correlations ( $r=0.262$ ;  $p\text{-value}=0.162$ ; and  $r=0.287$ ,  $p\text{-value}=0.125$ ,

<sup>(1)</sup> Data are not available for education levels more disaggregated than this, so it is not possible to say whether this is for academic or vocational programmes at upper secondary level.

respectively) as many other factors might affect this relationship (including the employment shares of all the other occupational groups, and the type of ISCED 3-4 education programmes being followed). It appears that countries with larger shares of technician-level occupations created more opportunities for intermediate qualified workers, including IVET graduates.

For example, despite having a relatively high number of technician-class jobs, many Scandinavian countries have a relatively low proportion of these going to workers with upper secondary education, while the Czech Republic, Austria and Slovakia have a very high proportion of workers with upper secondary education in these jobs. Part of this reflects differences in the educational attainment of the workforce: a reduction in university graduates will increase the proportion of those from upper secondary education and, as a result, the opportunities for those with upper secondary attainment to find employment in these jobs.

Figure 14. **Employment share and composition of technician occupations, 2007**



NB: Countries included: EU-27, Iceland, Norway and Switzerland. Data missing for Australia and South Korea

Source: Eurostat/EU-LFS.

Figure 14 shows the relationship between the proportion of the workforce with upper secondary education relative to university graduates and the proportion of technicians at this level, both of which have been conditioned on the relative size of the technicians' occupation category in the relevant country. It shows that countries with a greater relative supply of ISCED 3-4 workers unsurprisingly have a higher proportion of such workers in technician occupations. However, variation around this trend reveals differences in recruitment patterns. Even with the greater

supply of university graduates, Scandinavian countries still have relatively low levels of ISCED 3-4 workers in these jobs. By contrast, Luxembourg, the Netherlands and Switzerland more regularly recruit workers qualified to this level. This analysis can be taken as an indication of the differences in labour market opportunities for IVET graduates as this category of job grows.

Figures 15 and 16 show the situation for the next two most common occupation groups for workers with ISCED 3-4 qualification: skilled trades (an occupation group in decline) and service and sales workers (an occupation group that has grown). For service occupations, proportionally fewer upper secondary workers are employed in these jobs as the number of jobs grows ( $r=-0.395$ ,  $p\text{-value}=0.031$ ). This suggests that this occupation group recruits more low-qualified workers as it grows, reducing the overall share of intermediate-qualified workers. The proportion of workers at ISCED 3-4 in skilled trades remains broadly constant across all countries, regardless of the employment share of these jobs, suggesting that, as this group shrinks, it affects individuals of all skill levels in a similar way.

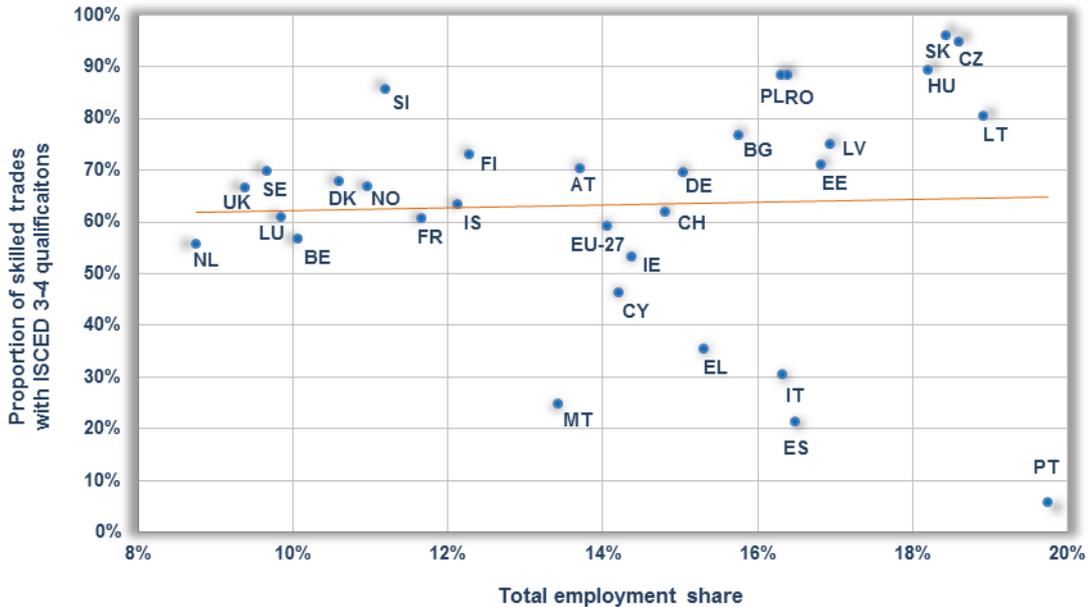
Figure 15. **Employment share and composition of service and sales occupations, 2007**



NB: Countries included: EU-27, Iceland, Norway and Switzerland. Data missing for Australia and South Korea.

Source: Eurostat/EU-LFS.

Figure 16. **Employment share and composition of skill trade occupations, 2007**



NB: Countries included: EU-27, Iceland, Norway and Switzerland. Data missing for Australia and South Korea.

Source: Eurostat/EU-LFS.

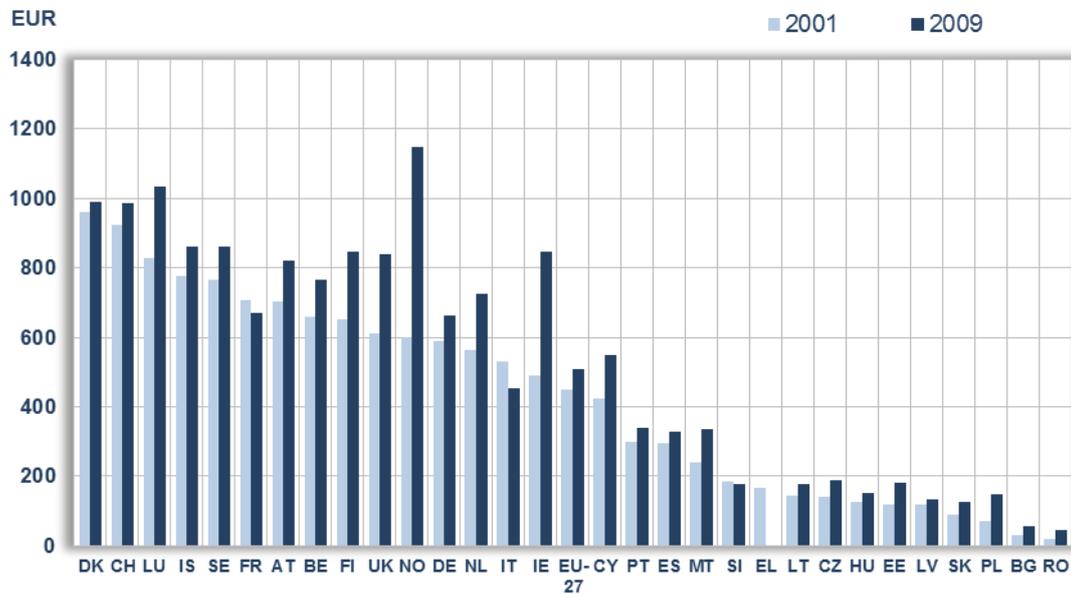
### 3.1.4. The wider education system

IVET outcomes partly depend on allocated resources. The EU-27 average for public expenditure on secondary schooling in 2008 was 2.2% of GDP. Total public spending on education in 2008 accounted for around 4.6% of total GDP, meaning that expenditure on education at levels 2-4 accounted for 49% of all public expenditure in that year. Figure 17 shows public expenditure per capita on education at ISCED 2-4. Many countries appear to have increased this amount at the beginning and at the end of the decade. Few – France, Italy and Slovenia – spent less per person on secondary education in 2009 than in 2001: this may reflect some form of fiscal restraint on education spending during a period of economic decline. Other countries have increased their expenditure per capita on secondary education substantially, relative to their initial level in 2001: Cyprus, Ireland, Malta, Norway and Poland are particular examples.

Figure 18 shows expenditure – public and private – on education at ISCED 3-4 as a proportion of GDP. Where it is available, it also shows the proportion spent on vocational and general programmes. Most countries spent between 1.0% and 1.5% on education at upper secondary level. The proportion spent on vocational programmes varies: the expenditure of the Czech Republic, Germany, the Netherlands, Austria and Finland are biased towards vocational programmes,

while Estonia, France, Cyprus, Latvia and Hungary have a greater focus on general programmes <sup>(12)</sup>.

Figure 17. **Total public expenditure on secondary education per capita, ISCED 2-4, 2001-09**



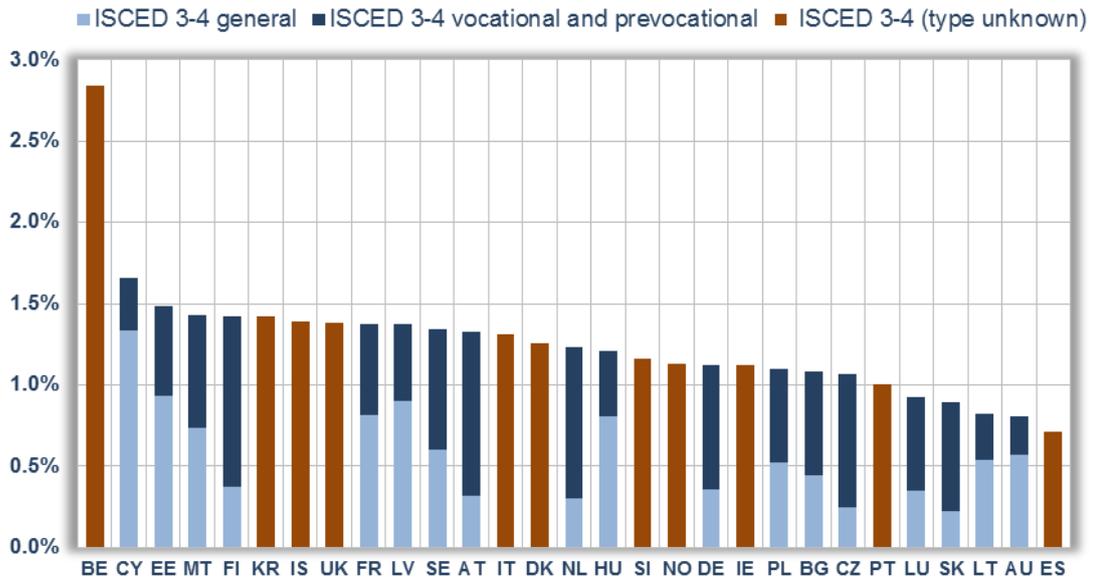
NB: Countries included: EU-27, Iceland, Norway and Switzerland. Data missing for Greece in 2009.

Source: Eurostat/UOE and OECD.

Vocational programmes may have several providers. Figures 19 and 20 show the balance of students in level 3 vocational programmes by the type of provider. Most countries provide almost all vocational study at level 3 through public institutions, although a few rely more on private provision (or private providers with public funding). Portugal is the only country with many students enrolled in independent private providers; Belgium, France and the UK, are the only countries with more than 40% of students enrolled outside of public sector providers. More level 4 vocational education takes place outside of public institutions. In several countries – including Bulgaria, France and Poland – independent private institutions are the dominant providers.

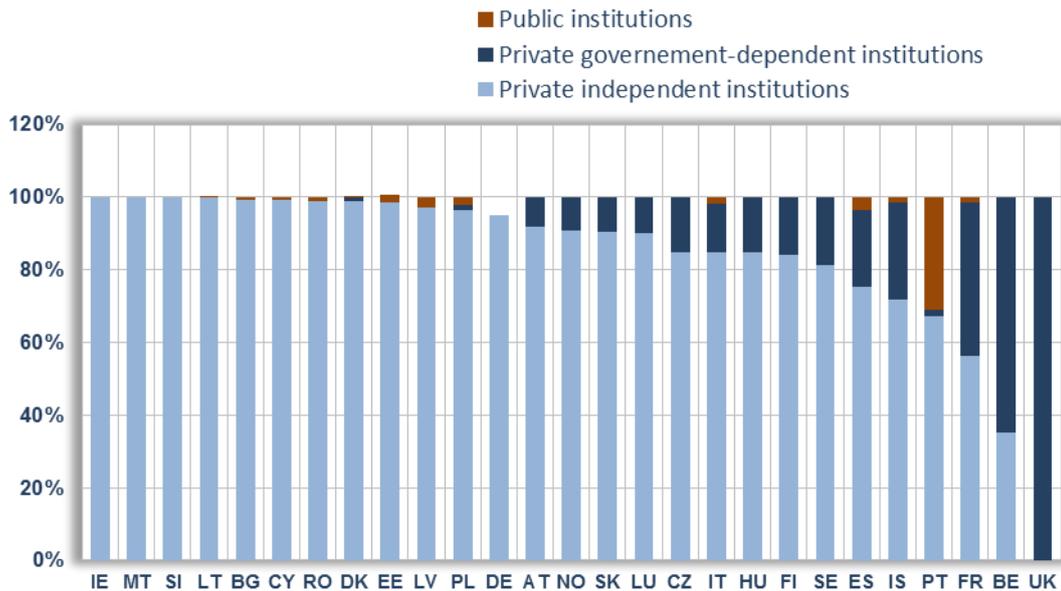
<sup>(12)</sup> This does not control for differences in numbers of students in each sector (so expenditures could be larger but per student spending could be smaller), and should be interpreted only as an indicator of the focus of public investment in upper secondary education.

Figure 18. Total public and private expenditure on upper secondary education, ISCED 3-4, % of GDP, 2008



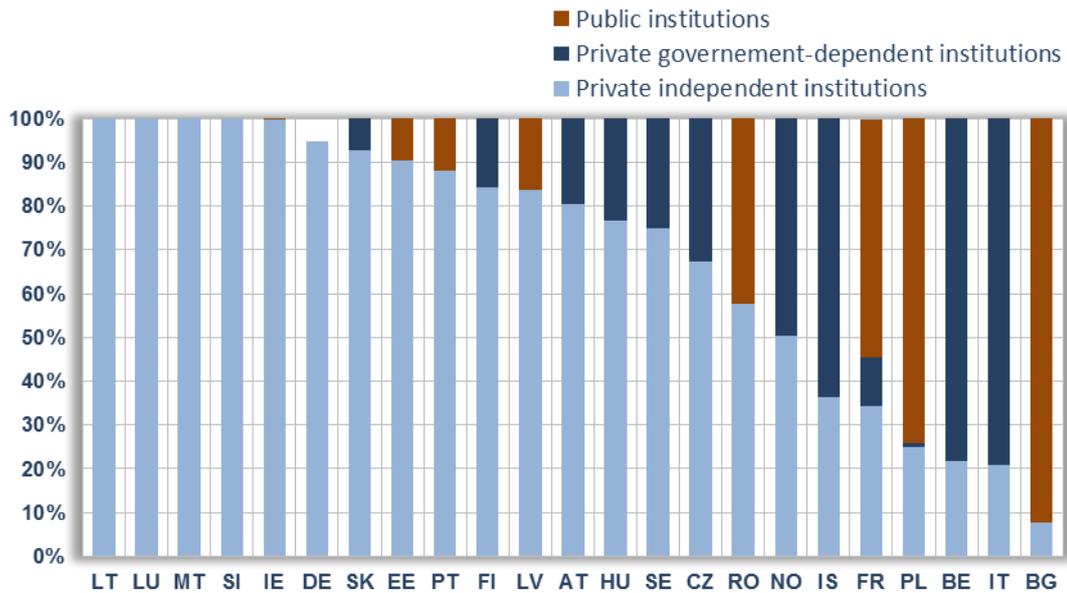
NB: Countries included: EU-27, Australia, Iceland, Norway and South Korea. Data missing for Switzerland.  
 Source: Cedefop website; OECD (for Australia, Spain and South Korea).

Figure 19. Types of ISCED 3 vocational provision, % of enrolled students, 2009



NB: Countries included: EU-27, Iceland and Norway. Data missing for Australia, Greece, the Netherlands, Switzerland and South Korea.  
 Source: Eurostat/UOE.

Figure 20. Types of ISCED 4 vocational provision, % of enrolled students, 2009



NB: Countries included: EU-27, Iceland and Norway. Data missing for Australia, Cyprus, Denmark, Greece, the Netherlands, Spain, the UK, South Korea and Switzerland.

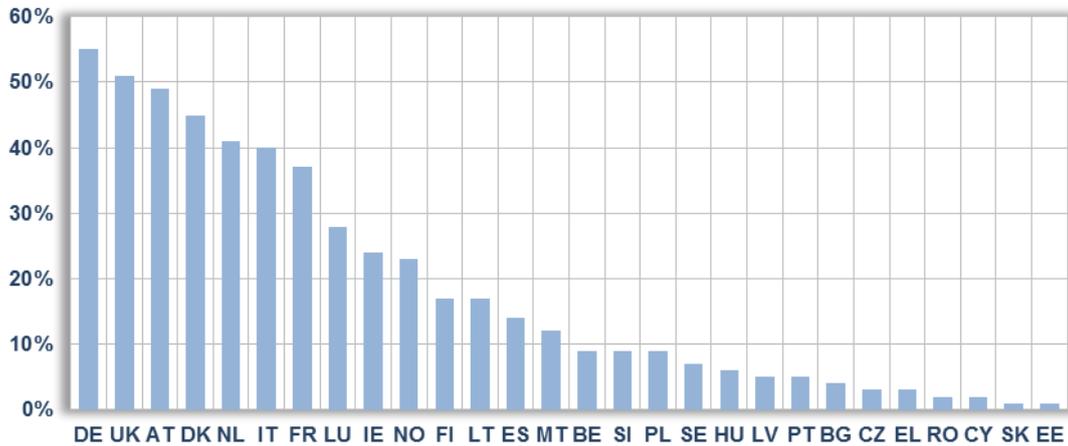
Source: Eurostat/UOE.

Firms sometimes act as provider or joint provider of IVET. To acquire practical skills and undertake practical training is an important reason for young people to go into IVET; 39% of young Europeans aged 15 to 35 declared in 2011 that this was the most important reason for going into VET (European Commission, 2011b). The best available data on firm involvement in IVET at European level are in the 2005 continuous vocational training survey <sup>(13)</sup>. Firms in these data are defined as providing IVET if they provide training for upward of six months leading to a vocational qualification at a recognised ISCED level. This is a wider definition of IVET than discussed in Chapter 2, and may include training at a relatively low level. Figure 21 shows the proportion of firms in each country providing IVET by this measure <sup>(14)</sup>.

<sup>(13)</sup> More recent data from the 2011 survey were not available at the time of this report.

<sup>(14)</sup> Some country figures do not accord well with other estimates: the German and the UK figures have been noted as being particularly high. An updated survey was conducted in 2011 and would offer a chance to corroborate these findings. The data from this survey were not publicly available during the study.

Figure 21. Firm involvement in IVET, % of all firms, 2005



NB: Question asking participating firms if they provided IVET, defined here as training for upward of six months leading to a vocational qualification at a recognised ISCED level.  
 Countries included: EU-27 and Norway. Data missing for Australia, Iceland, South Korea and Switzerland.

Source: Eurostat/ CVTS.

### 3.2. Measurable IVET outcomes

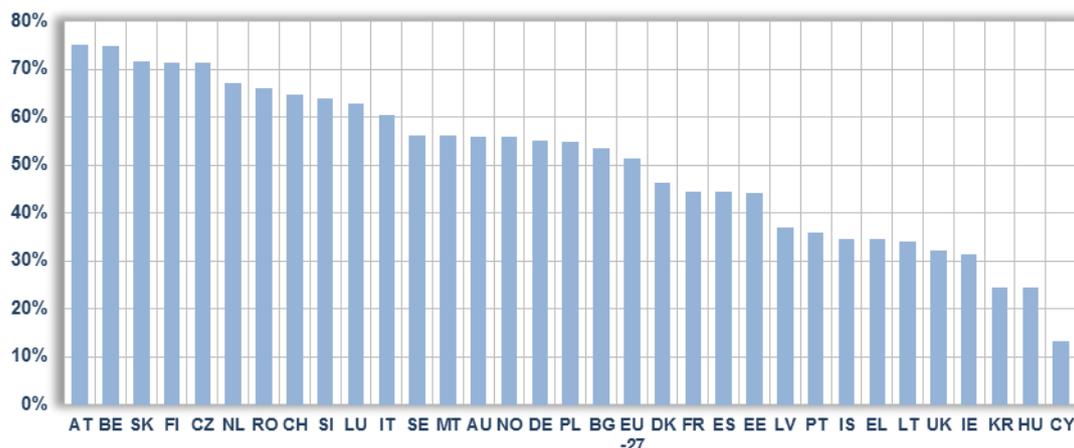
This section sets out data on the measurable outcomes of IVET systems across Europe. There are two main types of outcome: education outcomes and labour market outcomes for successful graduates of IVET programmes. Only two of these indicators – participation in IVET and IVET graduates – are related to IVET directly. All remaining indicators are linked to ISCED 3 and ISCED 4, not distinguishing data by programme orientation (general or vocational).

#### 3.2.1. Participation in vocational programmes

Figure 22 shows participation in IVET programmes, which is calculated as the number of students in ISCED 3-4 vocational programmes, as a proportion of all those in any ISCED 3-4 programme <sup>(15)</sup>. This variable is not available for young people only but measures the balance of the system between vocational and general programmes across all those in such programmes.

<sup>(15)</sup> As this is calculated as a proportion of all those in an educational programme, this measure does not give any indication of the size of the system or the number of students it produces. A high participation rate cannot mean a country produces many students, without knowing something about the total number of students and the overall population of that age group. For this reason, both the participation and graduation rates are included together to give a better description of the outputs of each country's VET system.

Figure 22. Participation rates in vocational programmes at ISCED 3-4, 2010



NB: Participation is the proportion of all those aged 15 to 64 in ISCED 3-4 who are enrolled in a vocational programme. Countries included: EU-27, Australia, Iceland, Norway South Korea and Switzerland.

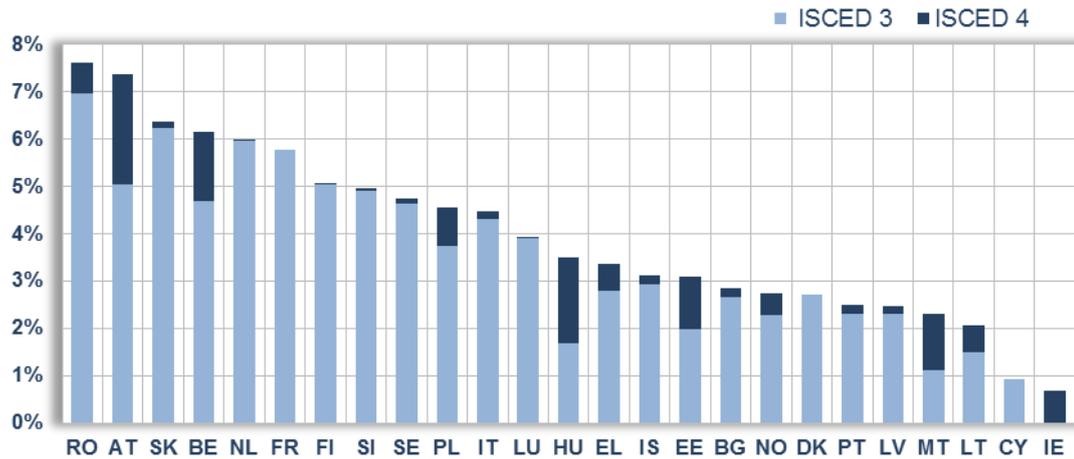
Source: Eurostat/UOE and OECD.

### 3.2.2. Educational attainment: IVET graduates

Participation rates give an indication of the balance between vocational and general education programmes for those enrolled, but do not indicate the number of qualified graduates the system produces. Figure 23 gives the number of 15 to 24 year-old students completing ISCED 3 or 4 vocational programmes in any one year as a proportion of that cohort's total population (<sup>16</sup>). There is a good deal of overlap between a country's participation and graduation rates, although some countries have lower participation but higher graduate rates (France) and vice versa (Malta). Figure 23 shows that most IVET takes place at ISCED 3 (in a few instances, the data on level 4 graduation are missing), although some countries – including Belgium, Estonia, Hungary, Malta, Ireland and Austria – have a significant number of ISCED 4 graduates. There are some differences by gender in this measure. Figures 24 and 25 show male and female graduation rates, illustrating difference such as between Romania, which has more male graduates than female, and Austria, with very little gender difference.

<sup>16</sup>) This is referred to as the graduation rate. It is worth noting that students typically only graduate from a programme in one year out of the 10-year period, so the highest value anticipated by this measure is 10%. This would correspond to all individuals in the cohort graduating from a given programme at some point between the ages of 15 and 24.

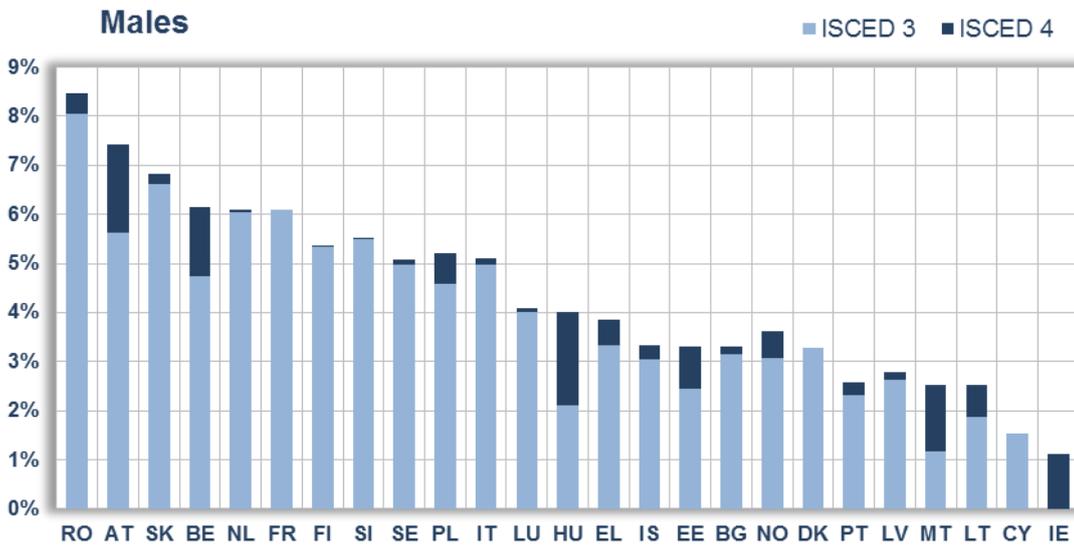
Figure 23. Graduation rates from vocational programmes, 15 to 24 year-olds, 2010



NB: Countries included: EU-27, Iceland and Norway. Data missing for Australia, the Czech Republic, Germany, Spain, South Korea, Switzerland and the UK. ISCED 4 data missing for Denmark, France and Cyprus. ISCED 3 data missing for Ireland.

Source: Eurostat/UOE.

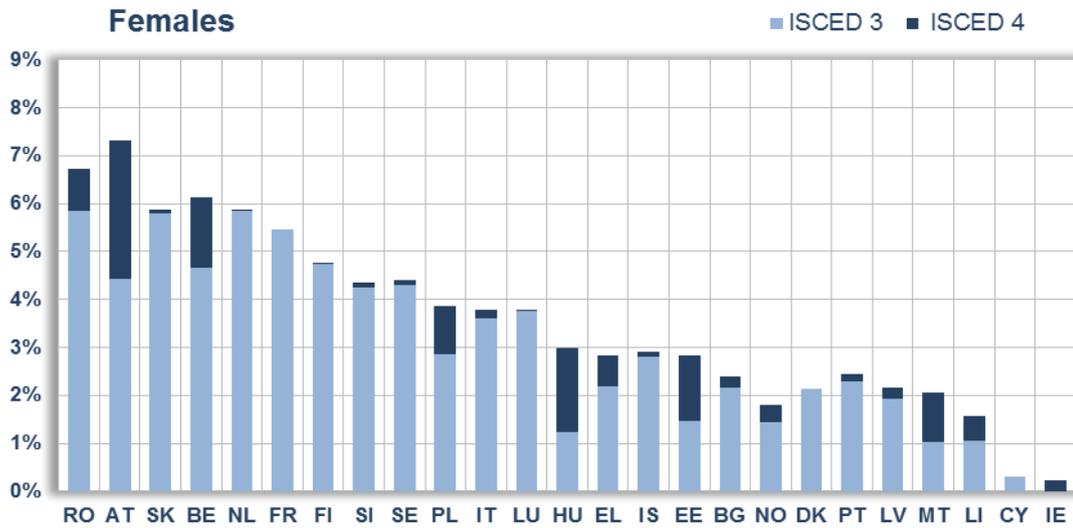
Figure 24. Graduation rates from vocational programmes, 15 to 24 year-old males, 2010



NB: Countries included: EU-27, Iceland and Norway. Data missing for Australia, the Czech Republic, Germany, Spain, South Korea, Switzerland and the UK. ISCED 4 data missing for Denmark, France and Cyprus. ISCED 3 data missing for Ireland.

Source: Eurostat/UOE.

Figure 25. Graduation rates from vocational programmes, 15 to 24 year-old females, 2010

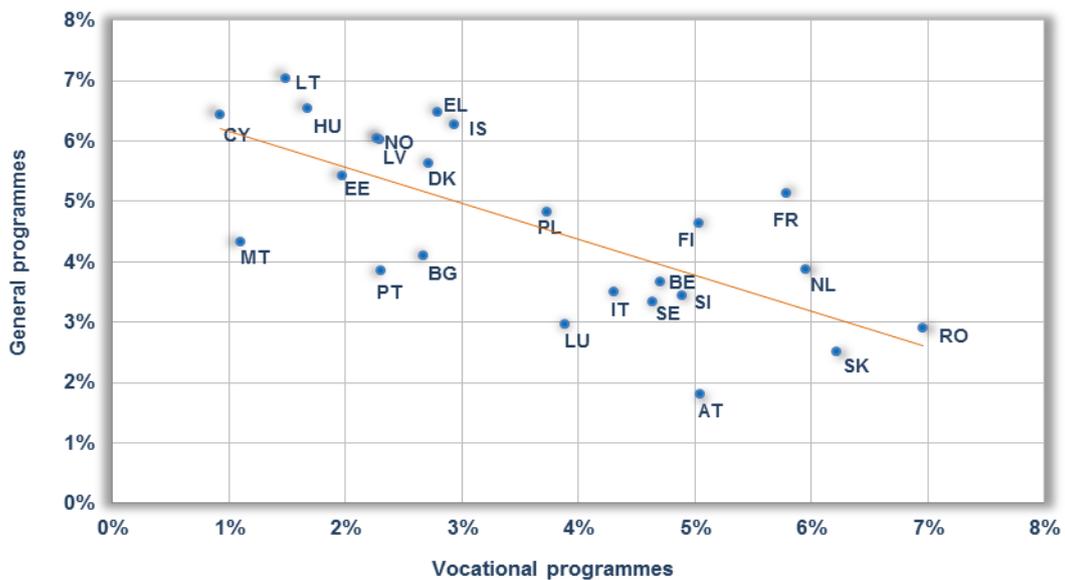


NB: Countries included: EU-27, Iceland and Norway. Data missing for Australia, the Czech Republic, Germany, Spain, South Korea, Switzerland and the UK. ISCED 4 data missing for France, Denmark and Cyprus. ISCED 3 data missing for Ireland.

Source: Eurostat/UOE.

To make these graduation rates comparable, Figure 26 plots the graduation rates at level 3 general programmes against those from level 3 vocational programmes. There is a clear negative correlation between the two ( $r=-0.740$ ,  $p\text{-value}=0.000$ ), indicating that countries appear to face a trade-off between producing more graduates from either vocational or general programmes.

Figure 26. Graduation rates from vocational and general programmes at ISCED 3, 15 to 24 year-olds, 2010

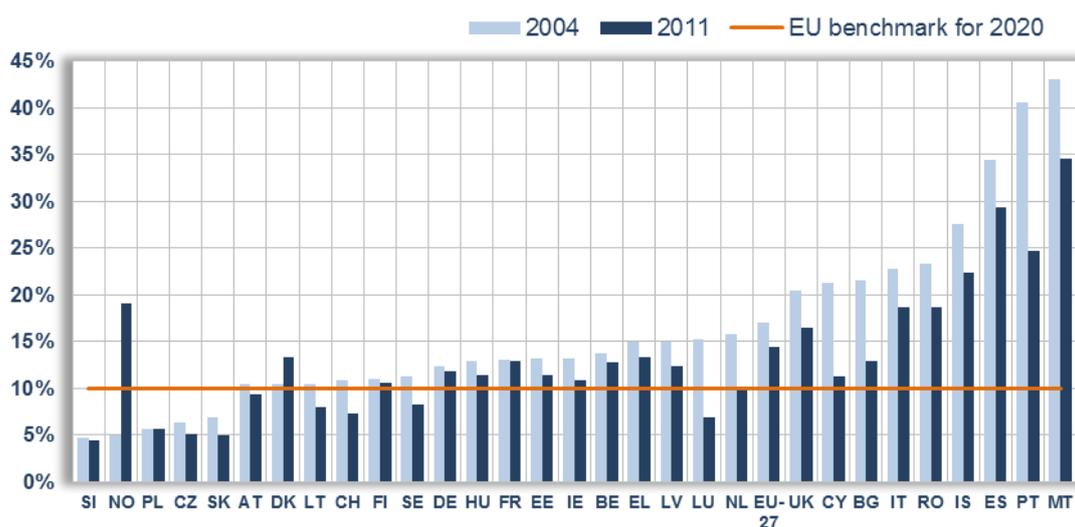


NB: Countries included: EU-27, Iceland and Norway. Data missing for Australia, the Czech Republic, Germany, Ireland, Spain, South Korea, Switzerland and the UK.

Source: Eurostat/UOE.

Several other indicators relate to IVET outcomes, but are not linked exclusively to them. Figure 27 shows the proportion of early leavers from education and training: these are defined by the EU as 18 to 24 year-olds with lower level qualifications (no higher than ISCED 2 or ISCED 3c short) and not currently in further education or training. The general trend across Europe is for this rate to decline as young people reach higher levels of attainment before entering full-time work <sup>(17)</sup>. This supports the Europe 2020 policy benchmark of, at most, 10% and national government policies that have aimed to meet this target.

Figure 27. **Early leavers from education and training rates, 2004-11**



NB: Break in data series for Germany, Italy, Norway, Spain (2005), Sweden (2006), Denmark, the UK (2007), Luxembourg (2009), Malta and the Netherlands (2010). Countries included: EU-27, Iceland, Norway and Switzerland. Data missing for Australia and South Korea.

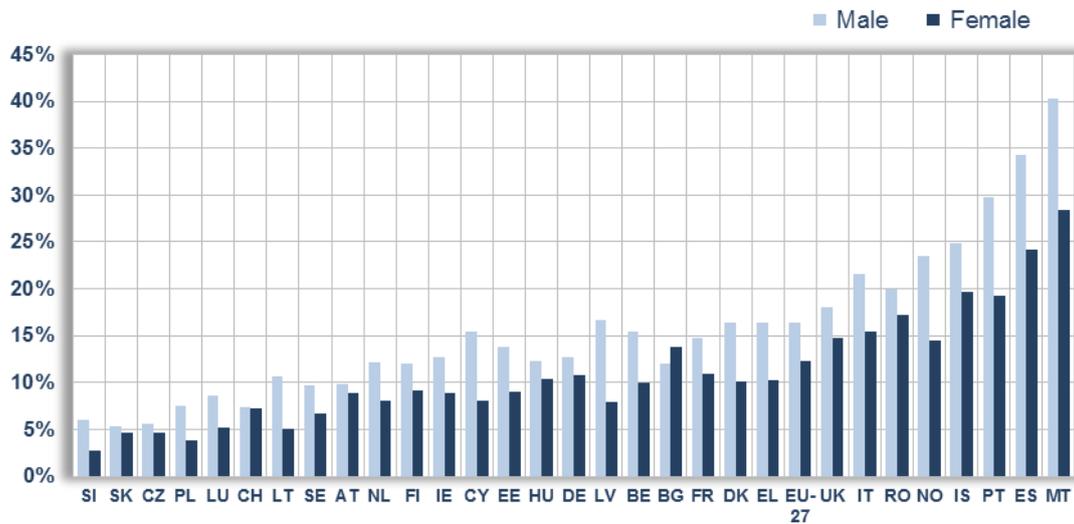
Source: Eurostat/UOE.

Despite the general trend of falling leaving rates, Figure 27 shows that there is a wide range in achievement across countries. Some countries, most noticeably Spain, Malta and Portugal, have a very high proportion of young people not reaching ISCED 3 or above in either general or vocational programmes.

As shown in Figure 28, young females have lower early leaving rates than their male counterparts in almost all countries (except for Bulgaria).

<sup>(17)</sup> The two outliers in this figure are Denmark and Norway: in both cases there is a methodological break in the data between 2004 and 2010, leading to a large upward jump in the leaving rate. Outside of these breaks, leaving rates in these countries have remained constant.

Figure 28. **Early leavers from education and training rates, 2011, males and females**



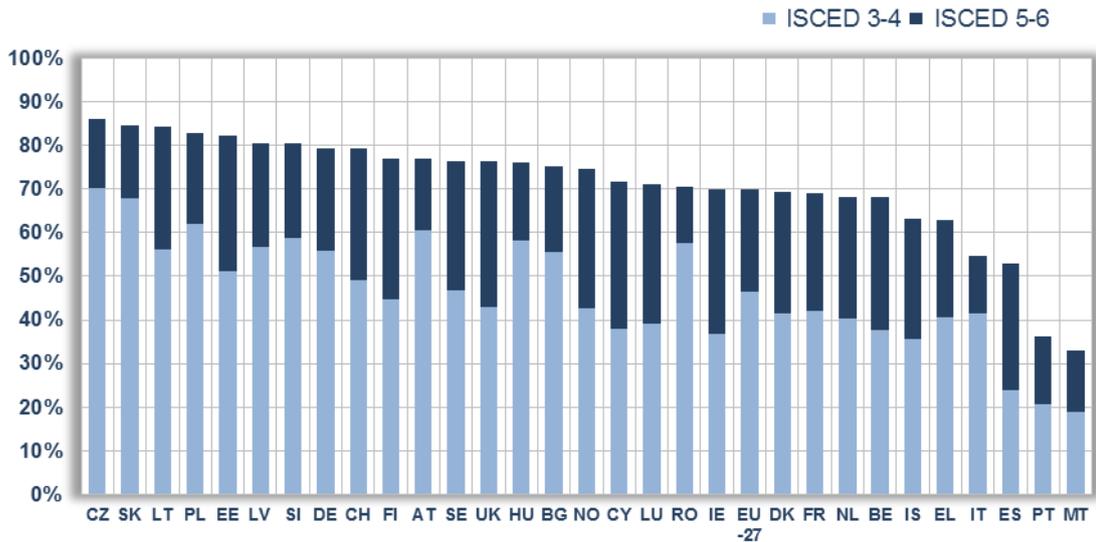
NB: Break in data series for Norway (2005) and Denmark (2007). Countries included: EU-27, Iceland, Norway and Switzerland. Data missing for Australia and South Korea.

Source: Eurostat/UOE.

Although countries offer second-chance programmes for older workers to return to education, these early leaving rates correspond closely to the overall educational attainment of the workforce. Figure 29 shows the proportion of the working age population who have completed at least upper secondary education (ISCED 3 and above) and those who have then gone on to complete tertiary education (ISCED 5 and above).

Figure 29 shows the relative size of the tertiary sector, relative to the secondary sector. It shows that, in terms of the education or skills supply in the labour market, different countries can be similar. The Czech Republic and Slovakia, for instance, have a very high proportion of the workforce with educational attainment at or above ISCED 3, but few of these workers complete tertiary courses. Countries, such as Cyprus, Spain, Ireland, Finland and the UK have a much larger proportion of those completing upper secondary schooling moving on to university or advanced vocational programmes. Spain has a high proportion of low attainment adults (below ISCED 3), but with a tertiary sector that generates proportionally more graduates than other low-attainment countries (such as Italy) and higher attainment countries.

Figure 29. **Highest educational attainment of working age population, 2010**



NB: Countries included: EU-27, Iceland, Norway and Switzerland. Data missing for Australia and South Korea

Source: Eurostat/UEE.

### 3.2.3. Earnings

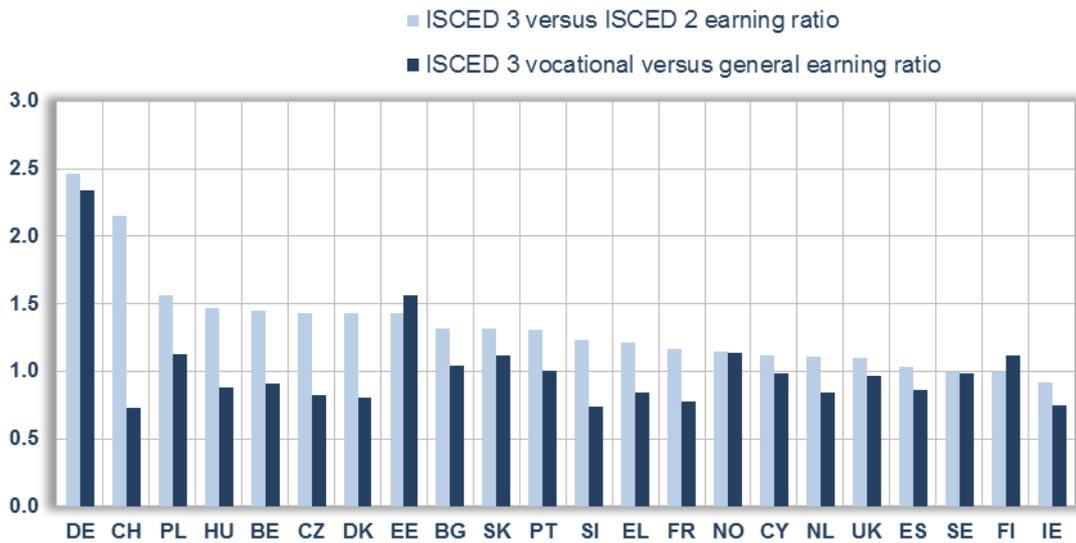
Several potential sources for data on earnings are linked to qualification level. Analysing labour force survey data, such as those available in the microdata of the EU labour force survey, to individual level was beyond the scope of this report but see Cedefop 2012 for an analysis of these data. Many national statistics agencies collect this earnings information but compiling these data across the EU-27 Member States was also beyond the scope of this project. The best available source of information on earnings for this report is data available from the European social survey.

Figure 30 shows two measures of earnings: the comparison between ISCED 2 and ISCED 3 weekly earnings and the comparison between vocational and general level 3 qualified workers, both expressed as a ratio. The relative earnings of upper secondary school graduates compared to those with lower secondary qualifications is an indicator of the productivity increases and private benefits from participating in additional education and training beyond the compulsory level. The ratio of vocational and general programme earnings shows the relative advantage of following one of these two paths in a given country.

There is no obvious pattern between the earnings premium from upper secondary education and the relative earnings of vocational and general level 3 graduates. It is possible to identify countries with lower level 3 premia (over level 2) and relatively low earnings for vocational graduates within that group (Ireland, Spain, France and the Netherlands), as well as countries with lower level 3 premia and relatively high earnings for vocational graduates (such as Finland and

Norway). For countries with higher overall premia for upper secondary graduates, Estonia and Poland have comparatively high wages for vocational graduates, while the Czech Republic, Denmark and Hungary have relatively low wages.

Figure 30. **Earnings ratios, ISCED 2 versus ISCED 3, and ISCED 3 vocational versus ISCED 3 general, 2010**



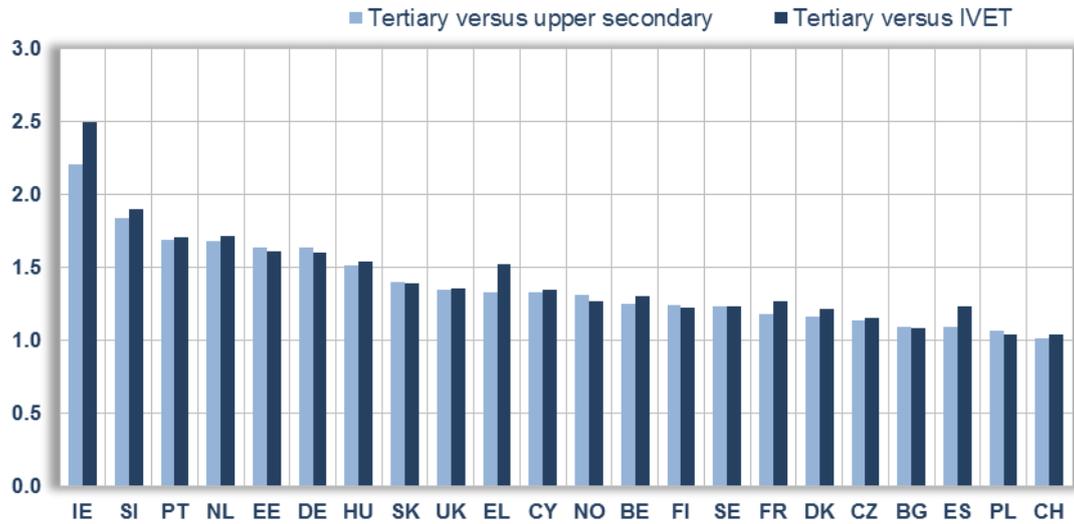
NB: Countries included: EU-27, Norway and Switzerland. Data missing for Australia, Austria, Iceland, Italy, Latvia, Lithuania, Luxembourg, Malta, Romania and South Korea.

Source: European social survey.

Another relevant comparison is with the earnings of university graduates. Figure 31 below shows the ratio of weekly earnings between workers with non-vocational ISCED 5 qualifications and ISCED 3-4 graduates. Several countries have large differentials between those at ISCED 3-4 and those at ISCED 5. A second comparison is made just for IVET graduates: the two ratios are similar within each country, with three countries (Ireland, Greece and Spain) having notably worse earnings gaps for IVET graduates.

Figure 32 shows the relationship between two sets of key earnings ratios. If the German point is disregarded (as there are concerns that such an outlier may result from problems with the data), there is a positive relationship between the two measures ( $r=0.487$ ,  $p\text{-value}=0.030$ ), suggesting that higher earnings for IVET graduates is not simply the result of greater earnings dispersion between skill levels, but reflects a narrowing of wage gaps between middle and higher earners.

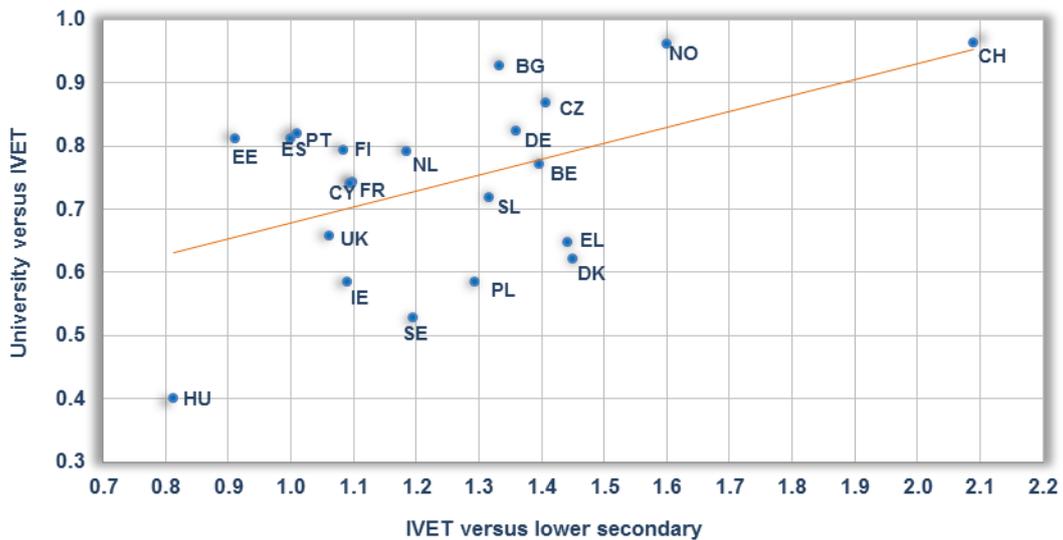
Figure 31. Earnings ratios, ISCED 3-4 (all and vocational only) versus ISCED 5, 2010



NB: Countries included: EU-27, Norway and Switzerland. Data missing for Australia, Austria, Iceland, Italy, Latvia, Lithuania, Luxembourg, Malta, Romania, and South Korea.

Source: European social survey.

Figure 32. Comparison of earnings ratios: ISCED 2 versus ISCED 3-4 vocational, and ISCED 5 versus ISCED 3-4 vocational, 2010



NB: Countries included: EU-27, Norway and Switzerland. Data missing for Australia, Austria, Iceland, Italy, Latvia, Lithuania, Luxembourg, Malta and South Korea.

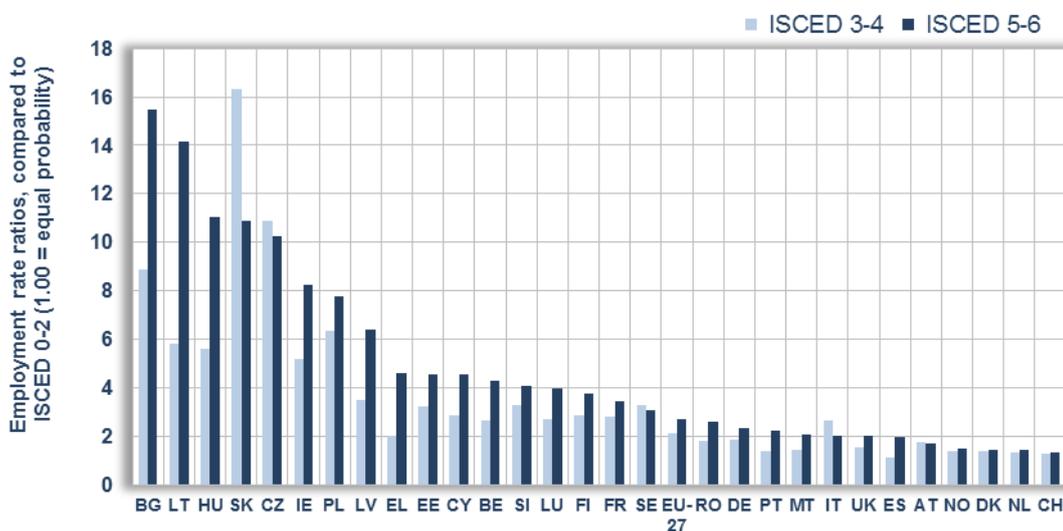
Source: European social survey.

### 3.2.4. Employment

Section 3.1.1 showed that many countries have seen decreasing youth unemployment from 2000 to 2007, followed by increasing unemployment following the onset of the global financial crisis. This naturally affects all employment rates,

although young people with differing levels of qualifications are affected to different degrees. Figure 33 (not distinguishing between vocational and general orientation) shows that many countries in Eastern Europe have very large disparities in the prospect of being employed between different qualification levels.

Figure 33. **Ratio of employment rates, 2011, by educational level**



NB: Countries included: EU-27, Norway and Switzerland. Data missing for Australia, Iceland and South Korea.

Source: Eurostat/EU-LFS.

University graduates generally have an advantage over upper secondary school graduates. However, in the Czech Republic, Italy, Austria, Slovakia, and Sweden employment rates are higher for the latter.

### 3.2.5. Assessment

This section has presented several measures of IVET outcome, both for the number of qualified students leaving the system and for their labour market success. Ideally, a good IVET system would produce many graduates who would go on to enjoy relatively high wages and employment prospects in the labour market. These favourable labour market outcomes should attract a similarly high number of students into these programmes, so there is circular connection between different outcome measures. However, the data in this section have shown that countries can perform well on one of these measures but less well on others. This might have different causes, with one concern being oversupply: a country may turn out many IVET graduates, but this supply can drive down wages and employment prospects if the demand for their skills is not there. Wages and employment prospects are also affected by non-IVET labour issues, such as immigration (which often affects pay and employment at the lower end of the

labour market) and higher education graduation rates. Institutional factors, such as the strength and coverage of unions or wage and employment protection legislation, may also constrain labour market outcomes: as an example, stringent minimum wage laws reduce the earnings ratios between IVET graduates and less qualified workers.

Table 2 summarises the relative standing of countries using five indicators: IVET graduate rates, wages and employment (the second and third of these both comparing IVET graduates to low-skill workers and to higher education graduates). Countries are ranked in order for each measure, and an attempt has been made to group them into high (green), medium (orange) and low (blue) performers (see Annex A for the methodology employed in grouping countries). These groups should be taken as indicative and reflect discrete clusters observed in the data.

A few main organising trends are identifiable from this framework. First, some countries compress wage distributions, mostly in Scandinavia. Earnings ratios between the low-skilled and IVET graduates are smaller than in many countries, but the same is true of the ratio between IVET graduates and university graduates. There is also, though to a lesser extent, compressed distribution of employment rates, with very similar employment rates between IVET graduates and university graduates in particular. This suggests that wage-setting institutions (such as collective bargaining arrangements) are determinants of IVET graduate labour market outcome <sup>(18)</sup>.

The experience in Eastern Europe falls into two categories. Some countries appear to have relatively successful systems, with earnings and employment advantages over low-qualified individuals, and smaller gaps in outcomes compared to university graduates. The Czech Republic, Poland and Slovakia fit into this category. However, some countries have much wider wage distributions, with high earnings premium for IVET graduates (over low-skilled) and university graduates (over IVET graduates). This covers Estonia and Hungary, and to a lesser extent (given available data) Bulgaria, Latvia, Lithuania and Slovenia. These countries also have low graduation rates, which would be consistent with students deciding to follow university routes into the labour market, given the differences in earnings.

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<sup>(18)</sup> An explanation connected purely to the market value of skills would require that there was little difference between low-qualified and high-qualified individuals. This seems unlikely, which encourages thinking about institutional differences in Scandinavian countries.

Table 2. Overview of IVET outcomes

	IVET graduation rates (%)	Wages		Employment	
		IVET versus ISCED 2	University versus IVET	IVET versus ISCED 2	University versus IVET
BE	6.1	1.397	0.770	2.884	1.599
BG	2.9	1.334	0.927	6.537	1.745
CZ	n.a.	1.406	0.867	11.182	0.944
DK	2.7	1.359	0.824	1.308	1.039
DE	n.a.	2.506	0.624	1.933	1.232
EE	3.1	1.451	0.621	3.110	1.406
IE	0.7	0.812	0.401	2.907	1.596
EL	3.4	1.061	0.657	1.506	2.270
ES	n.a.	0.912	0.811	0.926	1.807
FR	5.8	1.084	0.792	2.531	1.241
IT	4.5	n.a.	n.a.	2.219	0.772
CY	0.9	1.100	0.743	3.012	1.584
LV	2.5	n.a.	n.a.	3.160	1.824
LT	2.1	n.a.	n.a.	4.463	2.429
LU	3.9	n.a.	n.a.	2.106	1.462
HU	3.5	1.442	0.648	4.881	1.976
MT	2.3	n.a.	n.a.	1.324	1.433
NL	6.0	1.089	0.585	1.322	1.073
AT	7.4	n.a.	n.a.	1.711	0.946
PL	4.6	1.599	0.961	5.783	1.221
PT	2.5	1.293	0.586	0.945	1.636
RO	7.6	n.a.	n.a.	1.927	1.446
SI	5.0	1.195	0.527	3.122	1.239
SK	6.4	1.317	0.718	19.120	0.669
FI	5.1	1.010	0.819	2.479	1.326
SE	4.8	0.999	0.812	2.062	0.923
UK	n.a.	1.095	0.740	1.452	1.313
NO	2.7	1.185	0.791	1.542	1.056
IS	3.1	n.a.	n.a.	0.996	n.a.
CH	n.a.	2.089	0.963	1.413	1.041

NB: n.a. = value not available. Countries included are EU-27, Norway, Iceland and Switzerland. Data missing for Australia and South Korea.

Source: Eurostat/UOE for the IVET graduation rates; the European social survey for the wages; Eurostat/EU-LFS for the employment.

Of the countries with high graduation rates, there are no examples where outcomes are subsequently high across the board. IVET graduates from Belgium, for example, have relatively poor employment rates compared to university

graduates, while those from the Netherlands have little advantage in either employment or wages when compared to low-qualified workers. It is interesting to consider why graduation rates might be so high with less clear cut labour market benefits: requirements to continue studying play a role, if they generate an oversupply of IVET graduates compared to what the labour market needs. Another reason might be fees and incentives. Some students leave IVET because they cannot afford to pay fees and some enter in IVET because incentives are provided.

Several countries do poorly on almost all measures, which may be self-reinforcing. From the data available, south European countries largely fit this description, although Italy and Cyprus are exceptions. Iceland, Ireland and the UK are also at the lower end of most of these measures where they are available.

### 3.3. Summary

This chapter has presented data on IVET outcomes and the key exogenous drivers of success and attractiveness in IVET systems which feature in the conceptual framework (demographic trends, economic conditions, labour market conditions and wider education system). It has highlighted the key economic trends. The past decade has seen a period of economic growth then a recession following the global financial crisis. Labour markets have first tightened then experienced significant increases in rates of joblessness. High unemployment typically affects young people disproportionately. However, within each country the relative employment prospects of young people depend on their educational attainment. In some countries, the employment rates of low-qualified and university graduates are very similar to those coming out of IVET programmes; in others, having an upper secondary qualification, particularly a vocational one, substantially improves employment prospects.

Demographic patterns, focusing particularly labour market entry and exits, show that the retirement of a relatively large generation of older workers is important for IVET because it generates a larger-than-average replacement demand for skills. Few countries across Europe seem to experience highly-skilled immigration, which implies that there is greater pressure on education and training systems to give the right mix of skills to young people.

Meeting these demands requires understanding how skills needs are changing, particularly in the intermediate skilled jobs where many IVET graduates have traditionally found employment. Many European countries have falling employment shares in skilled trades and in administrative occupations or semi-skilled manual work, reducing the demand for such skills. At the same time, there

is increased firm demand for both service sector jobs and technician or associate professional occupations. Data presented in this chapter show that countries with proportionately higher numbers of technician-level jobs generally provide more employment opportunities for upper secondary school graduates, including IVET graduates. This relationship is mitigated by the number of university graduates competing for those jobs (rather than for the professional or managerial positions typically associated with higher education graduate employment). Conversely, faster growing service occupations recruit proportionately more lower-qualified workers.

If these patterns generate labour market demands for IVET graduates, supply is shaped by the education and training system. The key differences across Europe lie in the resources allocated and the involvement of the private sector. The chapter examined graduation rates, early leaving from education and training rates, or overall workforce qualification levels, and reveals a spectrum of attainment from countries producing many IVET graduates to those with few. In some countries, low levels of IVET attainment are compensated for by larger higher education sectors, while others have a relatively low-skilled workforce. It has argued that these measures are preferable to participation measures, which do not indicate the overall scale of the IVET system.

These graduation rates, workforce skill distributions and early leaving from education and training offer just one measure of IVET outcomes. Using available employment and earnings data for cross-European comparisons, the chapter finds few consistent patterns between different measures of success. Wages and employment prospects for IVET graduates result from the complex interplay between their supply and demand. Relatively low wage and employment outcomes can be coupled with high graduation rates if other, non-economic factors (including cultural, social or government factors) are pushing up enrolment in IVET programmes to the point of oversupply. Similarly, the relative performance of IVET graduates in terms of their wages or employment prospects depends on institutional factors, such as minimum wage laws, or the strength of employee or professional organisations.

## CHAPTER 4.

# Measuring IVET attractiveness in Europe

This chapter investigates the level of attractiveness of IVET in Europe. Indicators on attractiveness and their limitations are established, and the current picture regarding attractiveness is outlined. The chapter draws primarily on the quantitative analysis, and data from the survey of stakeholders. Wider findings from the country fiches and literature review are also incorporated into the analysis.

### 4.1. Ways to measure the attractiveness of IVET

Four types of data could be used as proxies in monitoring the attractiveness of IVET: enrolment in vocational programmes in comparison to general education at upper secondary level; entry-level employment rates and earnings for IVET graduates compared to other graduates; and public opinion of VET (e.g. measured through the Eurobarometer). Data on entry level employment rates and earnings for IVET graduates were not available from the labour force survey (2009 ad hoc module) at European level when the research was conducted, therefore earnings data from the European social survey are analysed in Chapter 3. Only the labour force survey data are available for IVET graduate employment, preventing breakdown of ISCED 3 and 4 attainments by programme orientation. These data are also analysed in Chapter 3. However, data covering the two other measures were available: participation levels as a percentage of all participants in upper secondary level education, from Eurostat/UOE data; and opinions as expressed in the recent Eurobarometer survey (European Commission, 2011a).

The Eurobarometer survey covers only the EU-27 Member States, while participation data are available across a wider range of countries.

The perception of IVET in Europe was surveyed in 2012, as part of this study, among three groups of key stakeholders: teachers and trainers, guidance counsellors, and employers. This survey explores some of the reasoning behind the responses seen in the Eurobarometer survey, although the response rate is low, meaning that the findings have to be interpreted Europe-wide, rather than on an individual country level, which limits the way in which they can be used. This chapter also explores the relationship between the indicators of attractiveness identified, and various factors corresponding to the different elements of conceptual framework developed for this study. Here, the Pearson's correlation is

used to explore the relationship between these factors and the attractiveness, with only those correlations which show statistical significance at the  $p < 0.05$  level included.

The Eurobarometer survey of June 2011 covers a randomly selected representative sample by Member State population size and density. Interviews were conducted in person in the national language of respondents, and captured by computer assisted personal interview (CAPI) where possible. The results are weighted using Eurostat population data or national data sets where relevant at country level to make the data representative of the population in terms of gender, age, region and size of locality. Sample sizes were around 1 000 per country.

Although this analysis relies on the recent Eurobarometer survey, some caveats should be noted. How the survey is conducted is a cause for particular concern. For example, the survey treats vocational education as a homogenous whole and does not take into account the significant differences in context between countries: the questions may be understood differently depending on the country context. The survey does not distinguish different levels of VET, such as VET at ISCED 3 and ISCED 4 possibly resulting in very different outcomes and having very different levels of attractiveness within the same country. Further, the survey focuses on vocational education and few of the questions make the comparison with other available options (there are some exceptions). The issue here is that, in the context of attractiveness and the decision-making process of young people in selecting education and training options, it is not just the attractiveness of VET pathways in isolation that is important, but their attractiveness relative to other options available or provided.

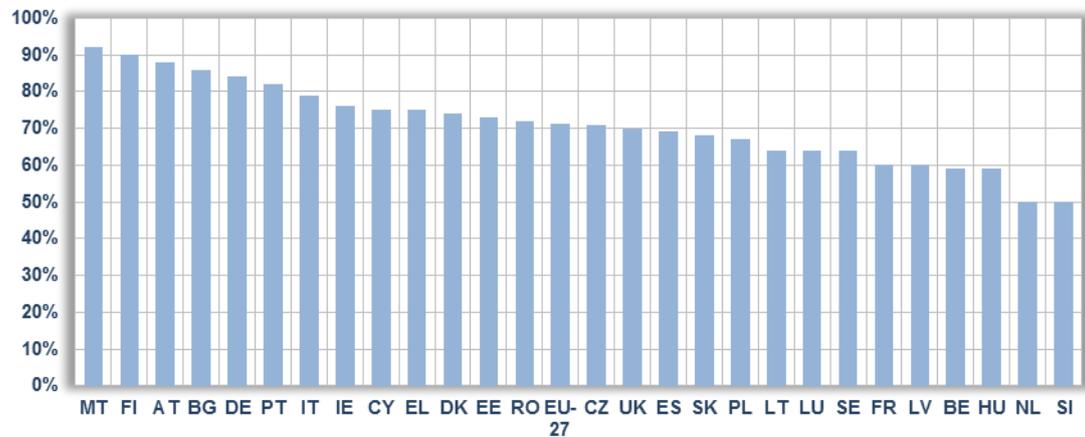
The Eurobarometer survey includes a range of questions which gauge attitudes to VET from several perspectives. However, two questions give a broad overall picture of general attitudes to VET and are possible indicators of the overall level of attractiveness of IVET in particular countries. The first question is 'Do you think that VET has a very positive, fairly positive, fairly negative or very negative image in this country?' Levels of attractiveness by this measure are very high, with an average of 71% answering 'positive' or 'very positive' across all Member States. The second question is: 'Nowadays, which of the following would you recommend to a young person who is finishing compulsory education?' This question is perhaps more relevant to the present study as it is focused specifically on the IVET context, unlike the previous question, which covers VET in general, also taking in continuing VET (CVET). Here, the results reflect less positive attitudes to IVET. Taking the difference between the percentage of people recommending vocational education and the percentage of people recommending general education yields an indicator of 'relative esteem': a positive value suggests

IVET is more highly recommended than general education, a negative value suggest the reverse.

## 4.2. IVET attractiveness: cross-country picture

Taking the indicators identified, it is possible to build up an initial picture of the present level of IVET attractiveness in Europe, and how it differs across countries. Considering the first question ‘Do you think that VET has a very positive, fairly positive, fairly negative or very negative image in this country?’, an average of 71% answer ‘positive’ or ‘very positive’ across all Member States. This can also be broken down by country as shown in Figure 34; responses are generally very positive. Around one in four respondents state that VET has a negative image, with only 3% regarding it very negatively.

Figure 34. **Proportion of respondents stating that vocational education has a ‘positive’ or ‘very positive’ image in their country**



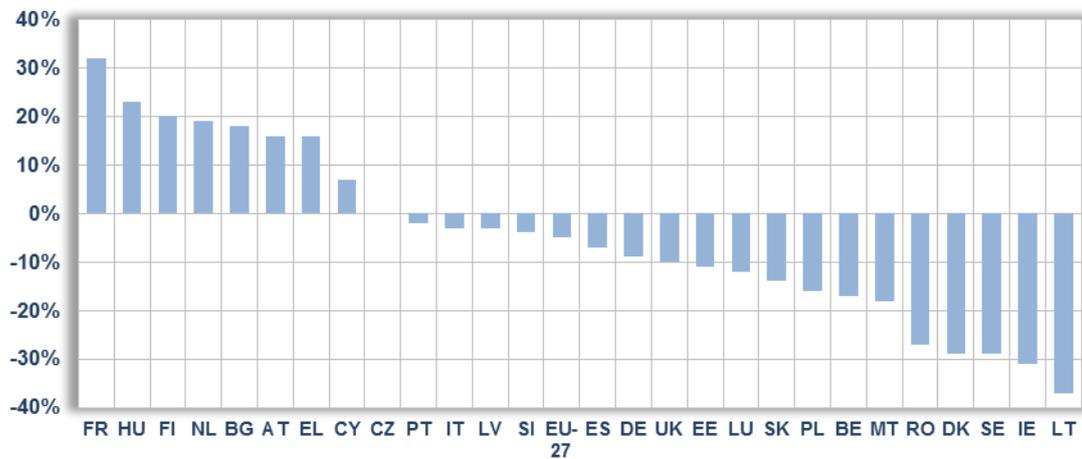
Source: European Commission (2011a).

The second question ‘Nowadays, which of the following would you recommend to a young person who is finishing compulsory education?’ gives an indicator of relative esteem. These data are presented across countries in Figure 35.

In most countries, more people would recommend general than vocational education. The average value for the relative esteem indicator is -5%, meaning that the number of people who would recommend general education is five percentage points higher than the number who would recommend vocational education. This paints a contrasting picture to the positive response to the previous question and may indicate that CVET has a more positive image than

IVET or that, although vocational education has a positive image, the image of general education is better.

Figure 35. **Relative esteem indicator (difference in percentage points between the percentage recommending vocational education and the percentage recommending general education)**

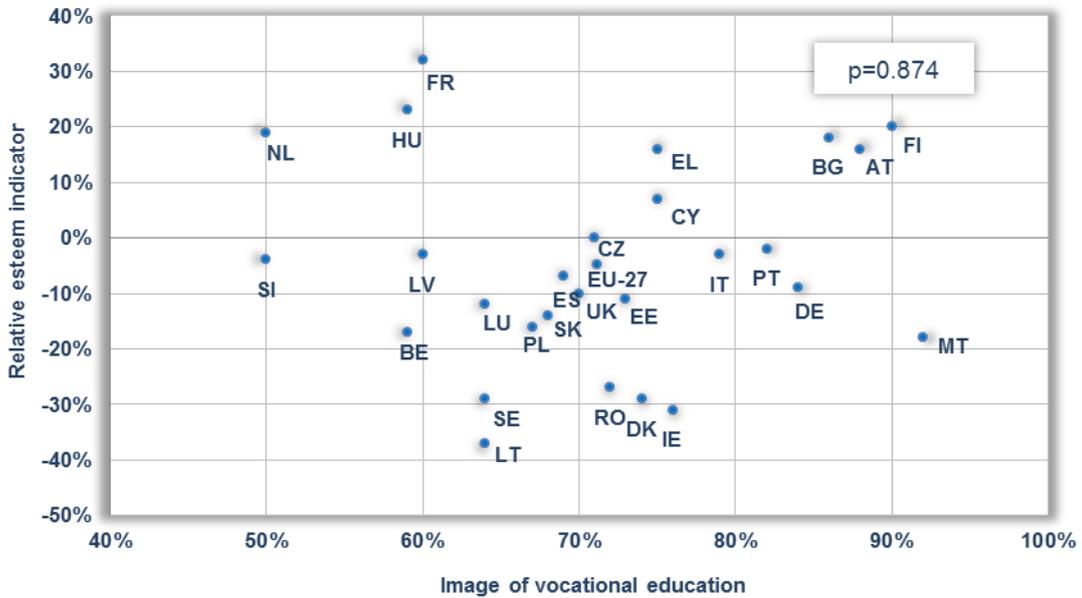


Source: European Commission (2011a).

Figure 36 shows that there is no statistically significant correlation between these two indicators of attractiveness. This may again suggest some disconnect between views of CVET and IVET, or may reflect a difference between personal viewpoints (as explored in the second question, asking for a personal recommendation), and perceptions of wider views in the country as explored in the first question. It might also represent a difference between overall views of IVET and the more personal question around what people would recommend. There are differences in response to the question in both age and education level: younger respondents are the most likely to recommend general education, as are those with higher levels of educational attainment.

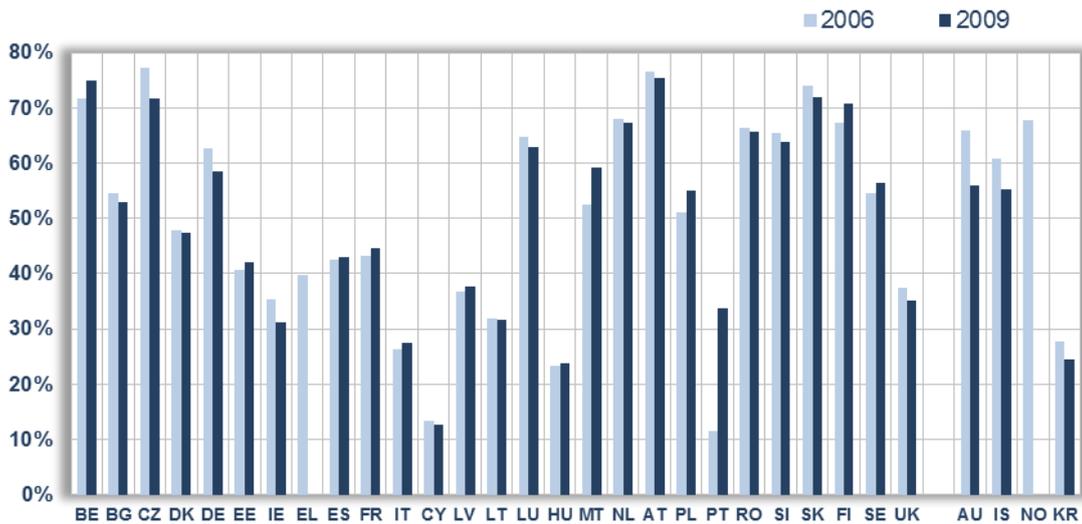
Given such a mixed picture of viewpoints, it is useful to examine how this translates into participation. Data in this case are for 2010, while the Eurobarometer data already discussed are from 2011. The data on participation, shown in Figure 37, suggest that participation is typically high, over 50% on average, but varies significantly between countries. The figure also includes a comparison between these data and the same data set for 2006, where available. In most cases, there is little difference between the two years, with Portugal a notable exception, having seen a significant increase in participation. Participation is particularly low in Ireland and the UK, the Baltic States, and some south European countries.

Figure 36. Comparison of percentage of people suggesting a positive image of vocational education in their country, and the relative esteem indicator



Source: European Commission (2011a).

Figure 37. Participation rates in IVET (level 3 and 4) vocational programmes as % of all at ISCED 3 and ISCED 4 (15-64 year-olds)



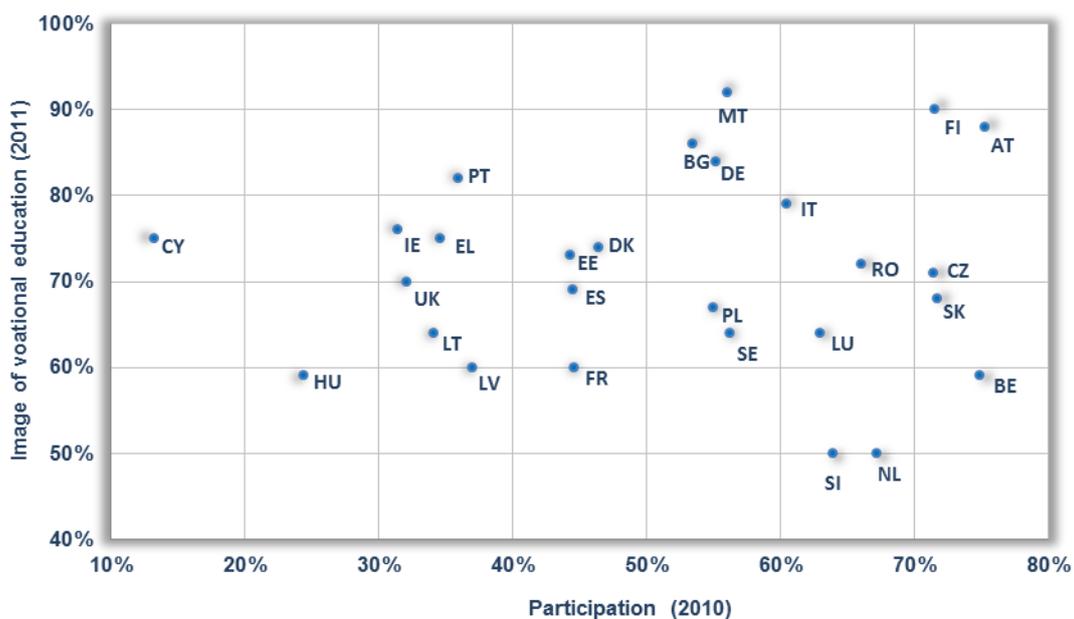
NB: Data missing for Greece and Norway for 2009.

Source: Eurostat/UOE.

A comparison of participation rates with the opinions presented in the Eurobarometer (European Commission, 2011a) (Figures 38 and 39) reveals no statistically significant correlation between participation and either viewpoints on

the image of vocational education or the relative esteem indicator. However, some countries demonstrate high levels of overall attractiveness while others do not. Figure 39 places three countries in the top right corner – the Netherlands, Austria and Finland – which have both a high level of participation and relative esteem, indicating that IVET can be considered attractive in these countries. Similarly, in Ireland and Lithuania, both relative esteem and participation are low, so attractiveness is relatively low in both these countries.

Figure 38. **Comparison between participation rates in IVET and perceptions of image of vocational education**

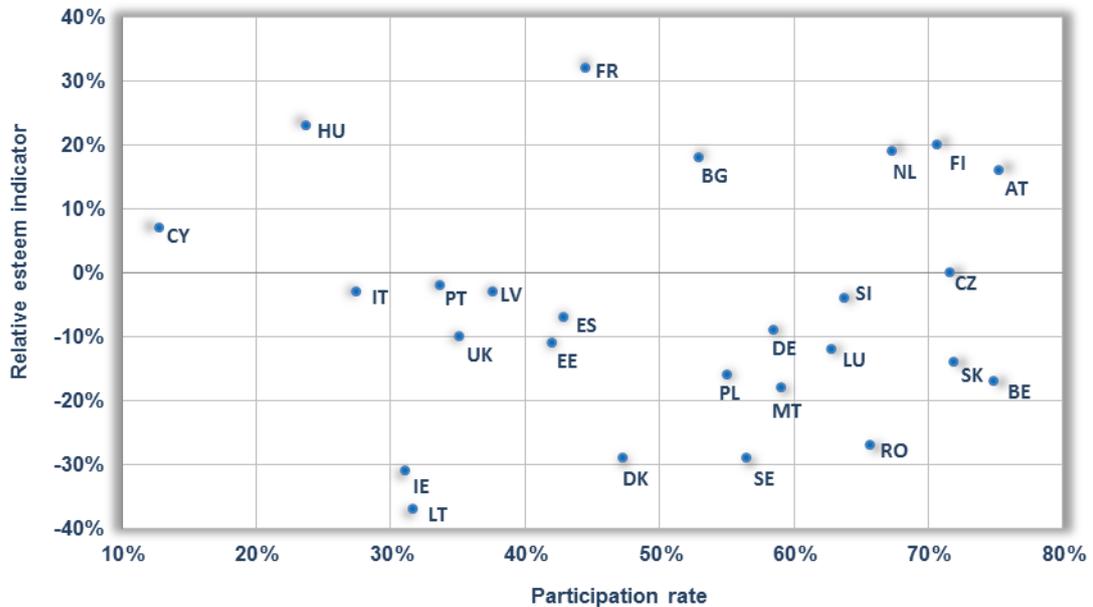


NB: Note that while the horizontal axis looks at participation in IVET (ISCED 3-4), the vertical axis looks at viewpoints on vocational education as a whole (including CVET).

Source: Eurostat/UOE 2010; European Commission (2011a).

For the group of countries in the bottom right of the chart – Belgium, Romania and Slovakia – participation is high despite a relatively low level of esteem. Here the picture is less clear. In Romania and Slovakia, there is some evidence that this may be related to changing attitudes to IVET, with attractiveness decreasing, but historical levels of participation have yet to erode. The situation is also unclear in Hungary, which has a high level of esteem, with a relatively low level of participation.

Figure 39. **Comparison between participation in IVET rates and relative esteem indicator**



Source: Eurostat/UOE 2010; European Commission (2011a).

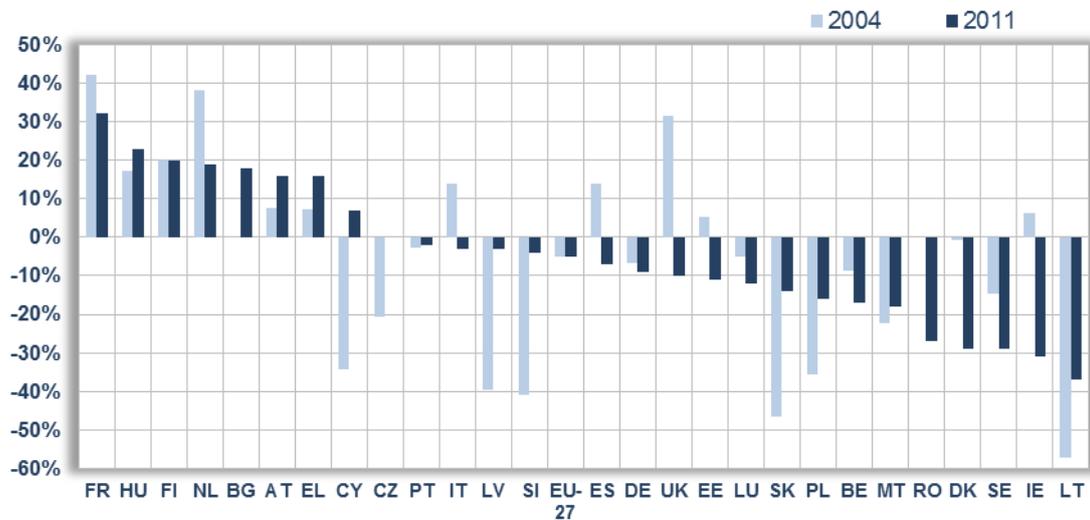
Changes over time in the relative esteem indicator can also be investigated, since the same question was included in a previous Eurobarometer survey on vocational training in 2004 (European Commission, 2005) (Figure 40), though both the wording for the questions and the possible responses to the questions are slightly different between the two surveys <sup>(19)</sup>. In Ireland and Lithuania attractiveness is low and participation rates have not changed significantly between 2006 and 2009. However, while in Lithuania the esteem indicator is negative in 2004 and in 2011 (with some slight improvement from 2004 to 2011), in Ireland, it has changed from slightly positive in 2004 to highly negative in 2011. This suggests some significant changes in attitudes in Ireland, which may relate to the economic crisis. Overall, the trend between 2004 and 2011 differs significantly between countries. Significant increase in the relative esteem of IVET is seen in

<sup>(19)</sup> In 2011 the question was ‘Nowadays, which of the following would you recommend to a young person who is finishing compulsory education?’ In 2004, the question was ‘Nowadays, which of the following would you recommend to a young person who is finishing compulsory education or secondary education?’

The responses available in 2011 were: general secondary or higher education; vocational education and training; it depends on the person (spontaneous); other; don’t know. In the previous 2004 survey, the possible responses were: general or academic studies; vocational training or apprenticeship; it depends on the person (spontaneous); other (spontaneous); don’t know.

Cyprus, Latvia, Poland, Slovenia and Slovakia, while there is significant reduction in Ireland and the UK.

Figure 40. **Relative esteem indicator**



Source: European Commission (2005; 2011a).

### 4.3. Stakeholder perspectives

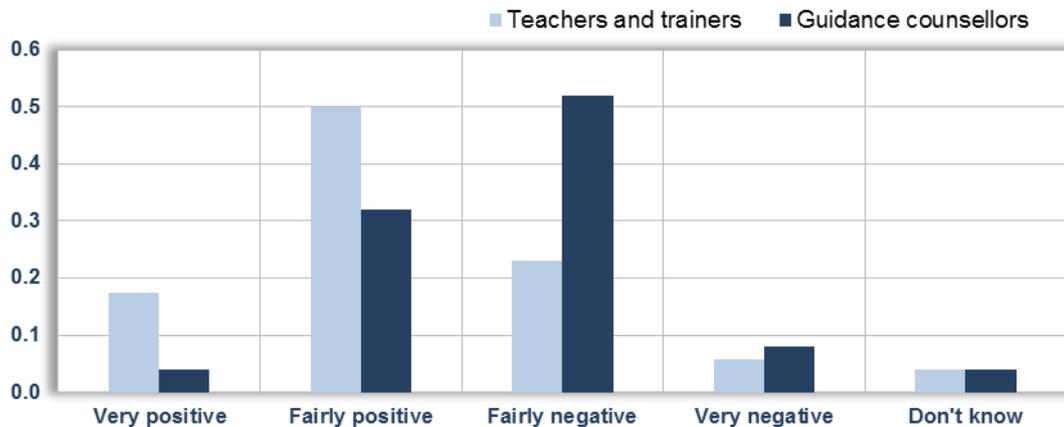
The above viewpoints, at the total population level, can be compared to those of particular groups across Europe expressed in the survey for this study. However, there are significant limitations to this survey. First, the response rate was low: of 309 people who accessed the survey, only 126 answered more than the initial introductory questions. These respondents were divided between the three surveys as follows: teachers and trainers 58; guidance counsellors 33; employers 35. Therefore, the results cannot be considered representative and, given the number of respondents, it is not possible to break the findings down at country level. This is a weakness as contexts and situations may differ significantly across countries. Further, some countries may be over-represented and others under-represented. The mix of nationalities differed between the stakeholder groups, and this may influence the results <sup>(20)</sup>.

Figure 41 shows the responses of guidance counsellors and teachers to the question 'In your opinion what is the image of IVET among young people in your

<sup>(20)</sup> It is also not confirmed that all respondents in the online survey on the Cedefop website declaring themselves as employers, teachers and guidance counsellors belonged to these specific stakeholder groups.

country?’ Results suggest that guidance counsellors believe impressions of IVET are much less positive among the young than suggested in the general population in the Eurobarometer data.

Figure 41. **In your opinion what is the image of IVET among young people in your country? Responses from teachers and trainers and guidance counsellors in Europe**



Source: RAND Europe and SKOPE.

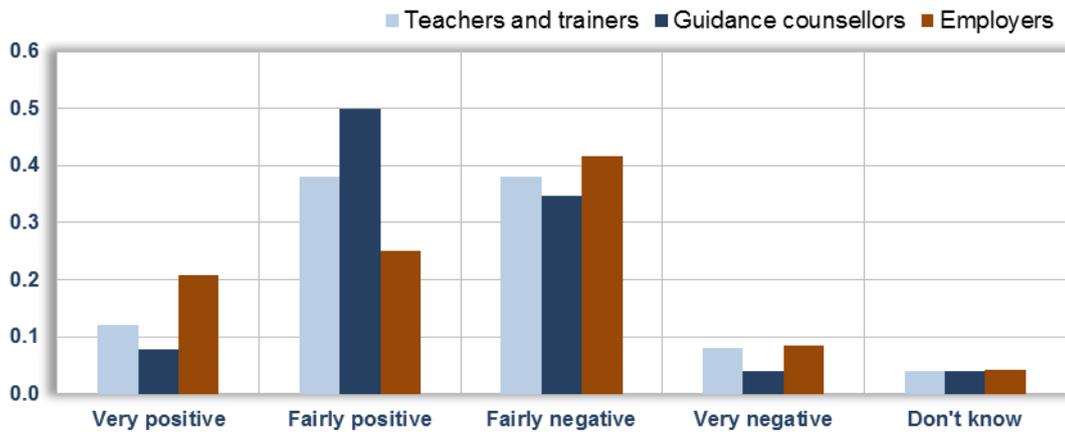
This is further reflected in Figure 42 which shows responses from the same groups, with the addition of employers, to the question ‘In your opinion what is the image of IVET in your country more widely?’ Here, guidance counsellors and teachers are more closely matched, with both groups suggesting that most would have a positive viewpoint on VET in the country. However, there is a contrast here in employers’ opinions; although most suggest that viewpoints would be positive in their country, almost half believe viewpoints will be negative.

This difference is further emphasised in Figure 43 where most employers have a positive view of IVET but there is a significant group which suggests negative viewpoint. This may reflect differences in opinion between countries. Views among teachers and trainers are more mixed, while guidance counsellors generally have a fairly positive view of IVET.

The survey also attempted to explore some of the reasons for the responses. Guidance counsellors and teachers and trainers were asked: ‘Which of the following do you think is most important in determining the attractiveness of IVET to young people?’ The responses, presented in Figure 44, suggest that alongside personal interest in the subject, the key factor determining attractiveness is thought by both groups to be future employment opportunities. A small number in each group also suggest that the social status of jobs related to IVET is the most important factor in determining attractiveness. Both of these responses show that

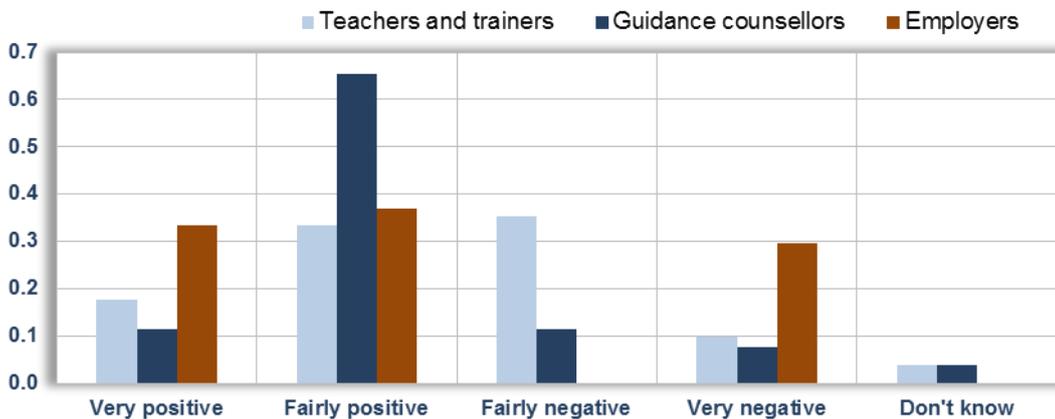
labour market outcomes are a key element in determining the attractiveness of different IVET pathways.

Figure 42. **In your opinion what is the image of IVET in your country more widely? Responses from teachers and trainers, guidance counsellors and employers**



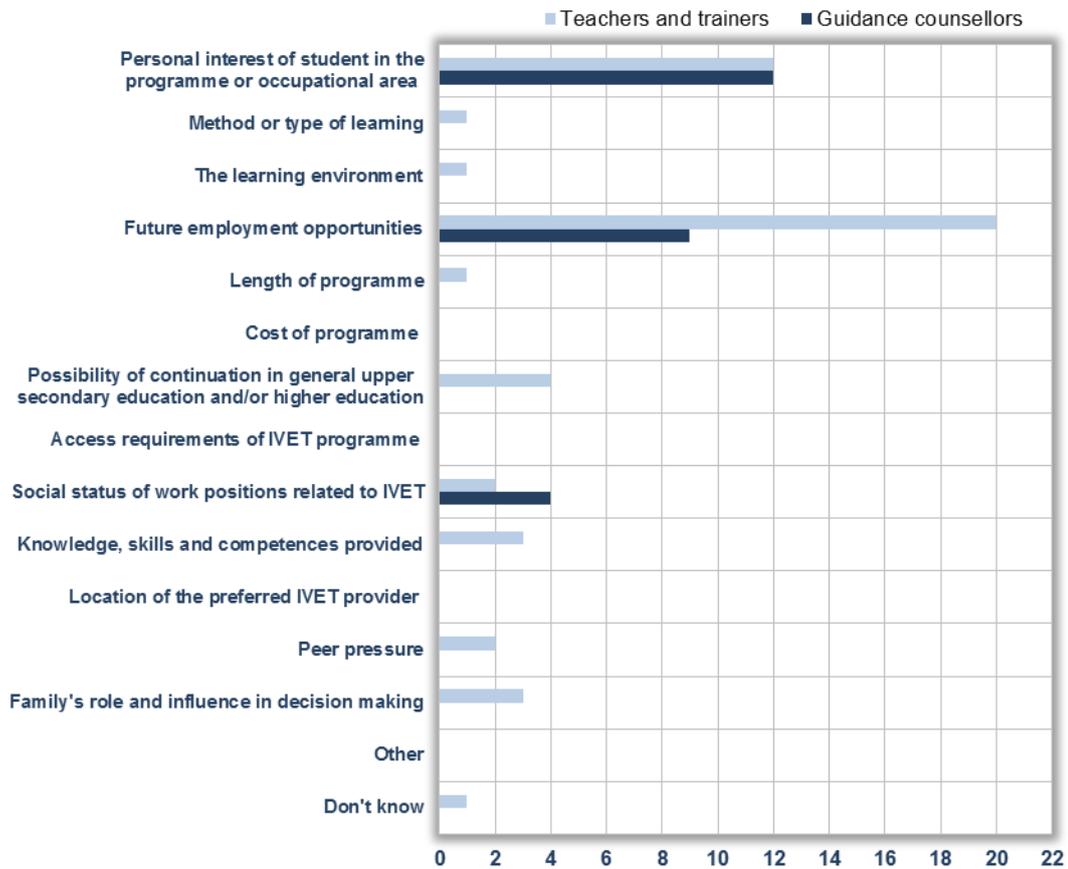
Source: RAND Europe and SKOPE.

Figure 43. **In your opinion, what is the image of IVET in your country among teachers and trainers, guidance counsellors, employers? Responses from teachers and trainers, guidance counsellors and employers**



Source: RAND Europe and SKOPE.

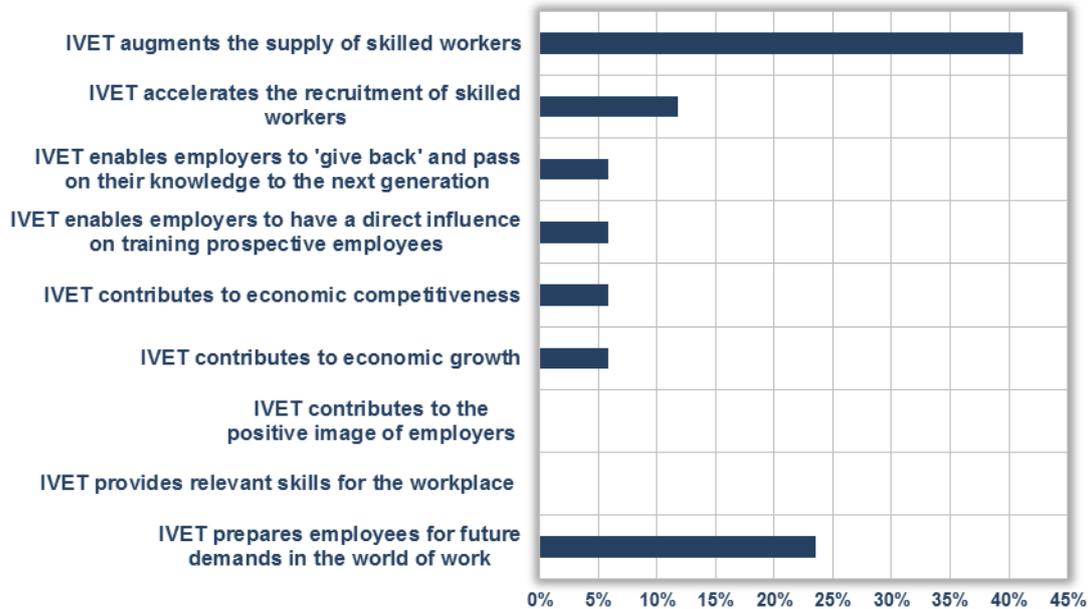
Figure 44. Which of the following do you think is most important in determining the attractiveness of IVET to young people? Responses from teachers and trainers and guidance counsellors



Source: RAND Europe and SKOPE.

The drivers which make IVET attractive to employers were also explored in the employers' survey. Figure 45 shows two particularly important factors: IVET supports the supply of skilled workers and prepares employees for their future in the world of work.

Figure 45. **In your opinion, which is the most important factor in the attractiveness of IVET to employers? Responses from employers**



Source: RAND Europe and SKOPE.

#### 4.4. Summary

Three indicators of IVET attractiveness are identified:

- (a) image of VET in the country;
- (b) relative esteem indicator;
- (c) participation.

The image of VET looks very positive in most countries, but the relative esteem indicator is much less promising, demonstrating the importance of considering IVET in comparison to the other available educational pathways.

Participation levels seem to be stable, even when attractiveness as measured by relative esteem is changing significantly, and the three indicators of attractiveness do not appear to be correlated.

Survey data suggest that image of VET among young people and employers might be less favourable than among the general population. They also suggest that the key factors in determining attractiveness to young people are personal interest in the subject and future employment opportunities. The social status of jobs related to IVET is also highlighted as important in the opinion of teachers and trainers and guidance counsellors. The next chapter explores whether some of these relationships hold at total population level.

Looking at the relative esteem indicator more deeply, the survey suggests that the advice people would give to a young person is nuanced and would

depend on their own skills and abilities. Respondents placed importance on the opportunity to continue to higher education, future employment opportunities, the personal interest of the student, and the method or type of learning, and the learning environment. Employers place more importance on the future employment opportunities for students. Those recommending general education over IVET place more importance on access to higher education while those recommending IVET value the method or type of learning and/or the learning environment frequently, alongside future employment opportunities. Student personal interest is considered important in almost all cases.

## CHAPTER 5.

# Key drivers and IVET outcomes

In this chapter, different potential drivers of IVET attractiveness and IVET outcomes, including those already discussed in Chapter 3, are investigated to see which of them matter. The level of correlation between available data on drivers and IVET outcomes and the two indicators of IVET attractiveness is analysed.

The chapter focuses primarily on the exogenous supply and demand drivers, largely due to the availability of information, but endogenous drivers are also explored.

Where quantitative data are not available directly, the analysis draws on the Eurobarometer survey on perceptions around the particular areas of interest; information from the country fiche and literature review are also used, as are the views of employers, teachers and guidance counsellors taken from survey implemented within this project.

### 5.1. Influence of exogenous demand drivers

In the conceptual framework, a range of possible exogenous demand drivers of the attractiveness of IVET are listed:

- (a) labour market trends (including demand for specific qualifications);
- (b) expected professional income;
- (c) status of occupations;
- (d) demographics;
- (e) economic progress: (un)employment;
- (f) migration of skilled labour.

Data and trends in relation to these issues are described in Chapter 3: here, we investigate their relationship to indicators on IVET attractiveness. The level of correlation between all the data available on the above drivers across a range of dates (typically 2000, 2007 and 2010 for each) and the three indicators of attractiveness is analysed. Where statistically significant correlations are found, they are described below. Where no statistically significant correlation ( $p > 0.05$ ) is found, it is not described except where the absence of an observed correlation is particularly noteworthy.

### 5.1.1. Economic crisis and the labour market

Challenges arising from the economic crisis may impact on IVET and its attractiveness. Several countries have cut their education budgets and youth unemployment has risen in many, notably, but not exclusively, in southern and eastern Europe. This is likely to impact on the outcomes for IVET graduates, and hence on attractiveness. The economic crisis has also affected the willingness of enterprises to take on apprentices and offer training places in many countries. This may restrict the ability of students to complete their full education, reducing the quality of the education received, and perhaps making IVET further removed from the world of work.

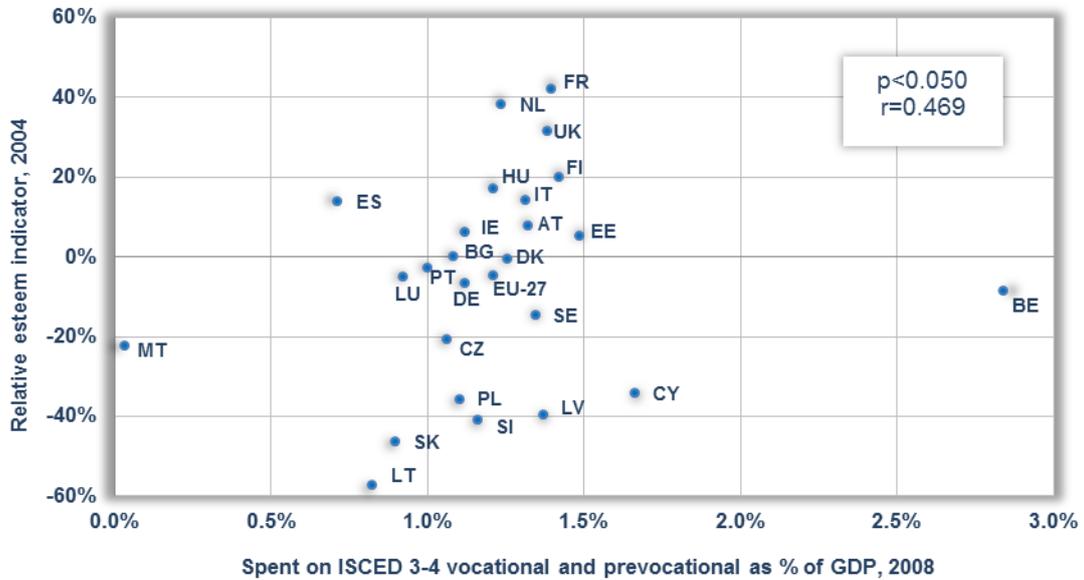
There is some evidence from the data that expenditure on VET impacts on attractiveness. Spend on ISCED 3-4 vocational/prevocational education as a percentage of GDP in 2008 was found to have a positive, statistically significant correlation with the relative esteem indicator in 2004 <sup>(21)</sup> as shown in Figure 46 (though not in 2011), and with levels of participation in 2010 ( $r=0.862$ ,  $p<0.001$ ); since, in many countries, funding is assigned on a per student basis, this second relationship is not surprising. However, the same pattern is found using per capita expenditure: the correlation between per capita expenditure and relative esteem in 2004, but not 2011, is positive and significant ( $r=0.551$ ,  $p=.008$ ), as is the correlation with participation ( $r=0.594$ ,  $p=.001$ ).

There is no statistically significant correlation between relative esteem and levels of unemployment, either in the population as a whole or among the youth population. Participation level in IVET in 2010, however, has a significant negative correlation with unemployment rates (Figure 47). This is somewhat counterintuitive, since it might be natural to assume that when unemployment is high, people would turn to education options as an alternative. However, it may be that in times of low employment, fewer VET opportunities are available (particularly in countries where employers play a role in provision), or that vocational routes linked directly to professions seem a less appealing option when jobs may be in short supply, so people favour general education.

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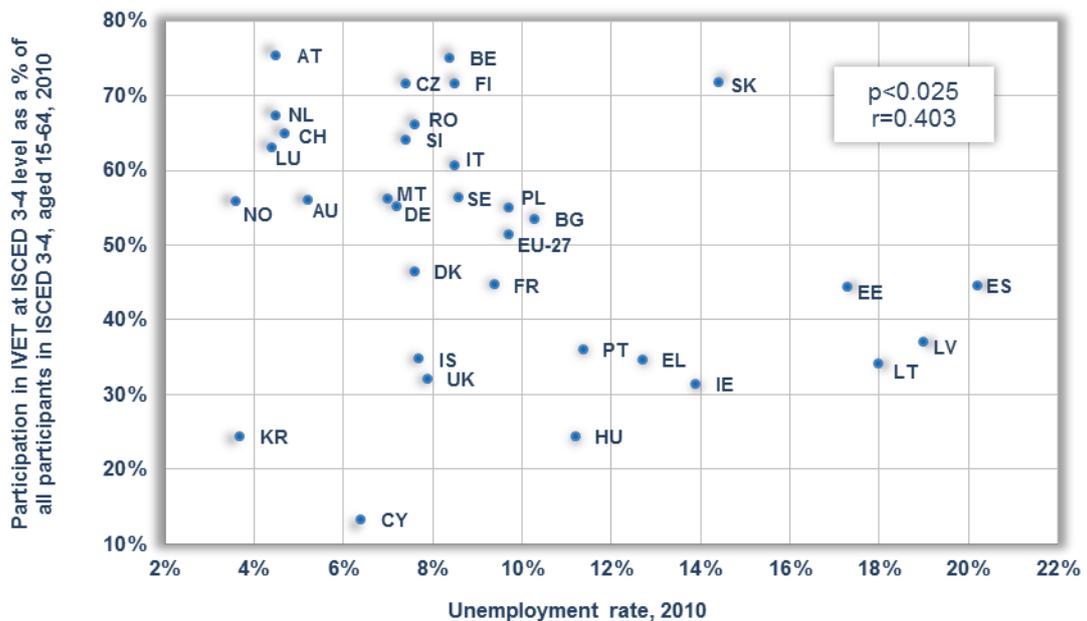
<sup>(21)</sup> Data for the relative esteem indicator from Eurobarometer are available only from 2004 or 2011.

Figure 46. **Relative esteem indicator 2004 against spend on vocational and prevocational education at ISCED 3-4 in 2008 as % of GDP**



Source: Eurostat/UOE, 2008; European Commission (2005).

Figure 47. **Participation in IVET against unemployment rates, 2010**



Source: Eurostat/UOE 2010; Eurostat/EU-LFS 2010.

Looking at wider labour market trends, it seems there is some relationship between the types of employment available and IVET attractiveness. The relative

esteem indicator 2011 is found to be significantly, positively correlated with the change in proportion of workers in service and sales between 2007 and 2011 ( $r=.384$ ,  $p=0.044$ ), which suggests that service and sales work is considered an attractive career choice that can be accessed through IVET.

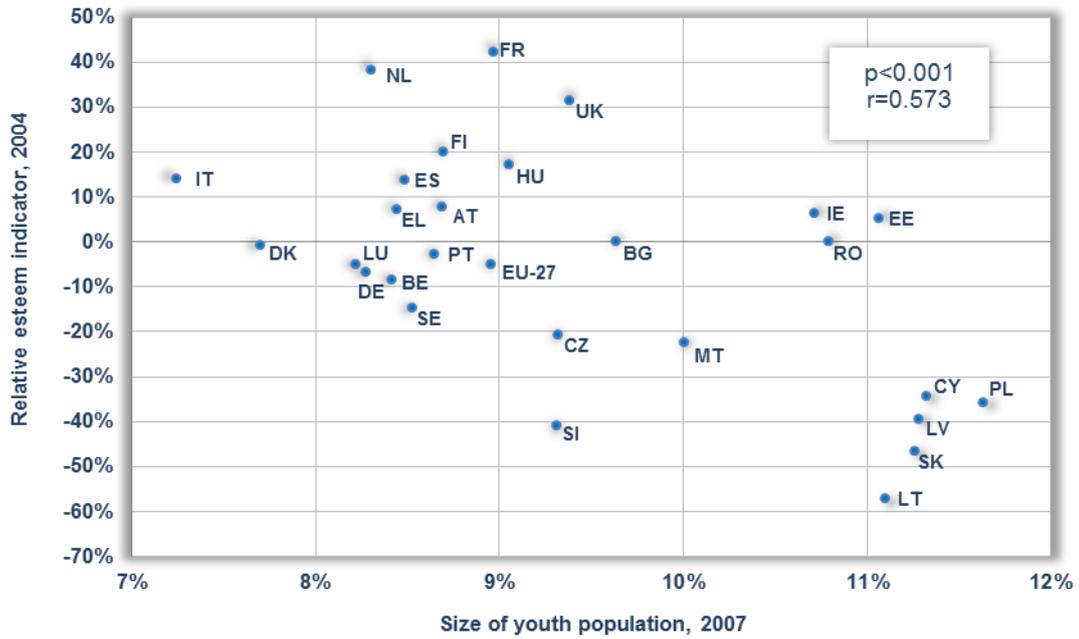
Participation levels in 2010 are also found to be correlated with the proportion of workers in particular sectors. Participation in 2010 is significantly and positively correlated with the proportion of all workers employed as technicians and associate professionals in 2000, 2007 and 2011 ( $r=0.486$ ,  $p=0.006$ ;  $r=0.486$ ,  $p=.006$ ;  $r=0.462$ ,  $p=0.009$ , respectively). It is also significantly, positively correlated with the proportion in these professions among those with ISCED 3-4 qualifications in 2000 and 2007 ( $r=0.423$ ,  $p=0.018$  and  $r=0.420$ ,  $p=0.019$ , respectively). Participation in 2010 is significantly positively correlated with growth in craft and related trades workers between 2007 and 2011 ( $r=0.589$ ,  $p<0.001$ ) and significantly negatively correlated with the change in number of plant and machine operators, and assemblers between 2007 and 2011 ( $r=-0.356$ ,  $p=0.049$ ). It is also significantly, positively correlated with the change in proportion of clerical support workers among those with ISCED 3-4 qualifications between 2007 and 2011 ( $r=0.397$ ,  $p=0.027$ ), and the change in proportion of craft and related trades workers in that group over the same period ( $r=0.375$ ,  $p=0.038$ ), while being significantly negatively correlated with the change in proportion of those with ISCED 3-4 correlations working as plant and machine operators, and assemblers between 2007 and 2011 ( $r=0.42$ ,  $p=0.019$ ).

This suggests that participation in IVET is supported when there is a growth in, or high level of, careers which are higher status (such as technicians and associate professionals) that can be accessed through ISCED 3-4 qualifications. It also suggests that service and sales roles are considered an attractive prospect which can be accessed through IVET. Higher levels of plant and machine operators and assembler roles are linked to lower participation, either because these roles are less attractive, or because IVET qualifications are not necessary for these positions.

### **5.1.2. Demographics and migration**

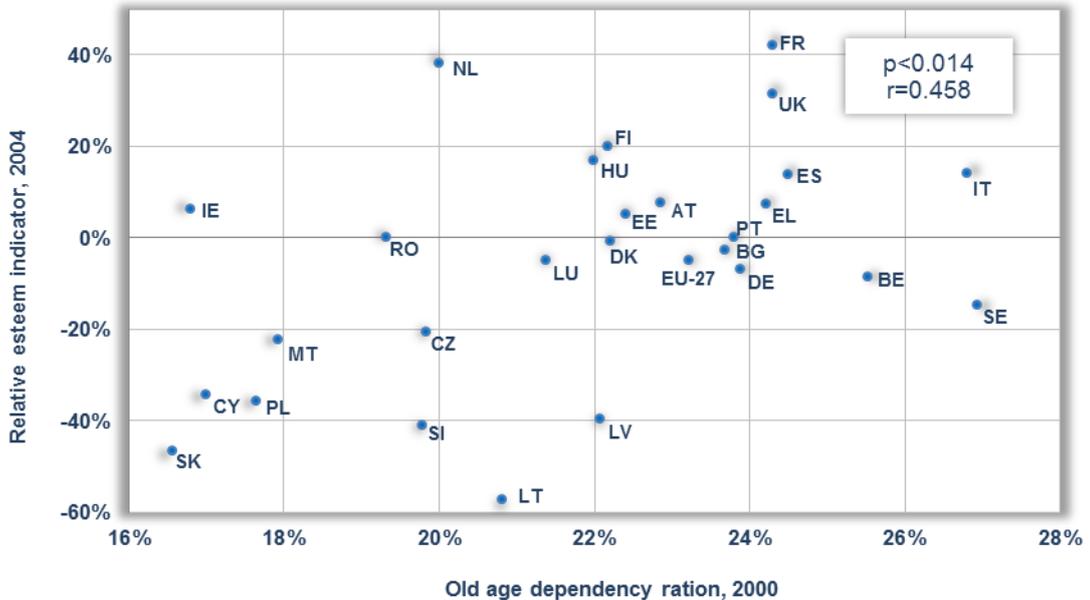
As described in Chapter 3, dominant demographic trend across Europe has been the ageing of the population. Analysing both the size of the youth population and the old-age dependency ratio, no statistically significant correlation is found with either relative esteem in 2011 or participation in 2010. However, there is a significant correlation with relative esteem in 2004, which is found to correlate negatively with the size of the youth population in 2007 and positively with the old-age dependency ratio in 2000 as shown in Figure 48 and Figure 49.

Figure 48. **Relative esteem indicator (2004) against the size of the youth population, 2007**



Source: Eurostat/UOE 2008; European Commission (2005).

Figure 49. **Relative esteem indicator (2004) against old-age dependency ratio, 2000**



Source: Eurostat/UOE 2008; European Commission (2005).

It is difficult to analyse the impact of migration on the attractiveness of IVET statistically. It is likely that migration may impact on attractiveness in a range of ways, but the picture is complex and multidimensional. For example, an influx of

young people with high skill levels into a country may make IVET less attractive by reducing the level of employment. However, an influx of young people may equally indicate attractiveness if many of those young people have entered the country to access education. Similarly complex pictures emerge when considering migration in other areas, and the picture also differs when looking at migration within Europe, and migration from or to other countries. A simple analysis of the numerical data is not likely to be revealing in this context: it is a wider and more complex issue that would require further investigation and which is likely to have very different implications in different countries.

### **5.1.3. Summary**

Possible relationships can be identified between several exogenous demand drivers of attractiveness and indicators of attractiveness. This is indicated in Table 3, where statistically significant correlations observed are included; in all other cases (where an X is shown) no statistically significant correlation was found. Spend on VET and the composition of the labour market in the country are noted as significant influences. Overall unemployment also has an impact on participation, though not on other measures of attractiveness.

## **5.2. Influence of exogenous supply drivers**

The conceptual framework lays out several exogenous supply drivers of IVET attractiveness:

- (a) social factors, particularly the views of family, teachers;
- (b) attractiveness of other education pathways;
- (c) norms of participation in different pathways;
- (d) level of interest in the subject (education at earlier levels, stereotypes).

Analysing further data from the Eurobarometer surveys, and from the survey of perspectives on IVET attractiveness carried out for this project, provides a way to understand the extent to which these wider perceptions and social factors influence the attractiveness of IVET to students.

### **5.2.1. Perceptions around IVET labour market relevance**

The extent to which IVET prepares students for the labour market is likely to have an impact on attractiveness. The Eurobarometer provides a range of information on perceptions around the labour market outcomes from IVET, exploring the level of agreement with the three statements/questions below.

Table 3. Relationships between possible exogenous drivers of attractiveness and indicators of attractiveness

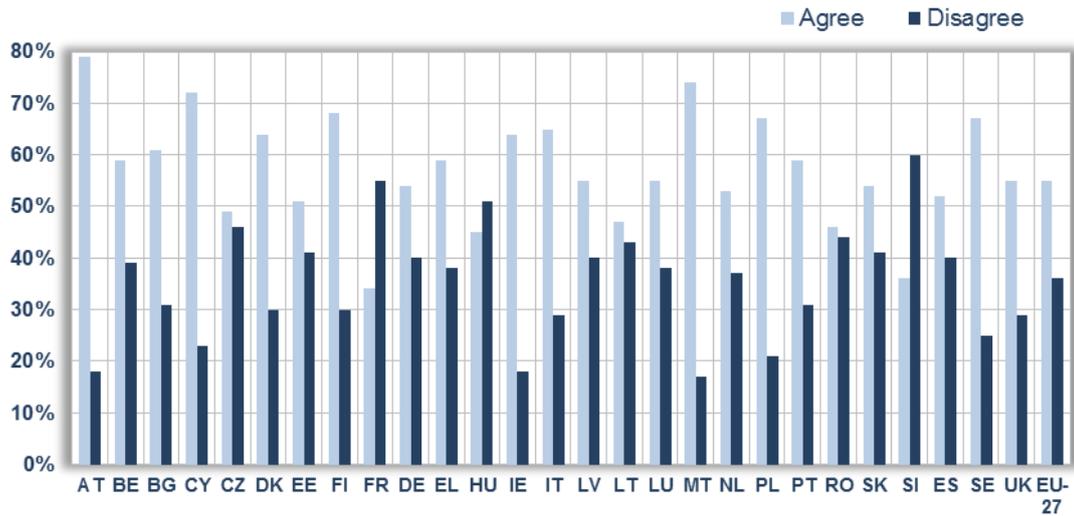
	Participation in IVET as % of all participants at ISCED 3-4 (2010)	Relative esteem indicator (2011)	Relative esteem indicator (2004)
Expenditure on ISCED 3-4 vocational/prevocational education as a percentage of GDP (2008)	Yes, positive (0.862)	X	Yes, positive (0.469)
Expenditure on ISCED 3-4 vocational/prevocational education, per capita (2009)	Yes, positive (0.594)	X	Yes, positive (0.551)
Unemployment rate	Yes, negative (-0.403)	X	X
Youth unemployment	X	X	X
Proportion working as technicians and associate professionals	Yes, positive	X	X
Change in proportion working in craft and related trades and clerical support	Yes, positive	X	X
Change in proportion working as plant and machine operators, and assemblers	Yes, negative	X	X
Change in proportion working in service and sales	X	Yes, positive	X
Old-age dependency ratio	X	X	Yes, positive (0.458)
Size of youth population		X	Yes, negative (-0.573)

Source: RAND Europe and SKOPE.

VET leads to jobs which are well-paid: attitudes here are fairly positive, with more people thinking that IVET leads to well-paid jobs than the reverse (Figure 50). This is particularly clear in Denmark, Cyprus, Malta, Austria, Finland and Sweden. Only in three countries do a higher percentage of respondents believe that IVET does not lead to well-paid jobs than those believing that it does: France, Hungary and Slovenia. People who think that VET has a positive image in their country are more likely to agree with this statement, with 61% agreeing compared to 39% among those who say VET has a negative image in their country.

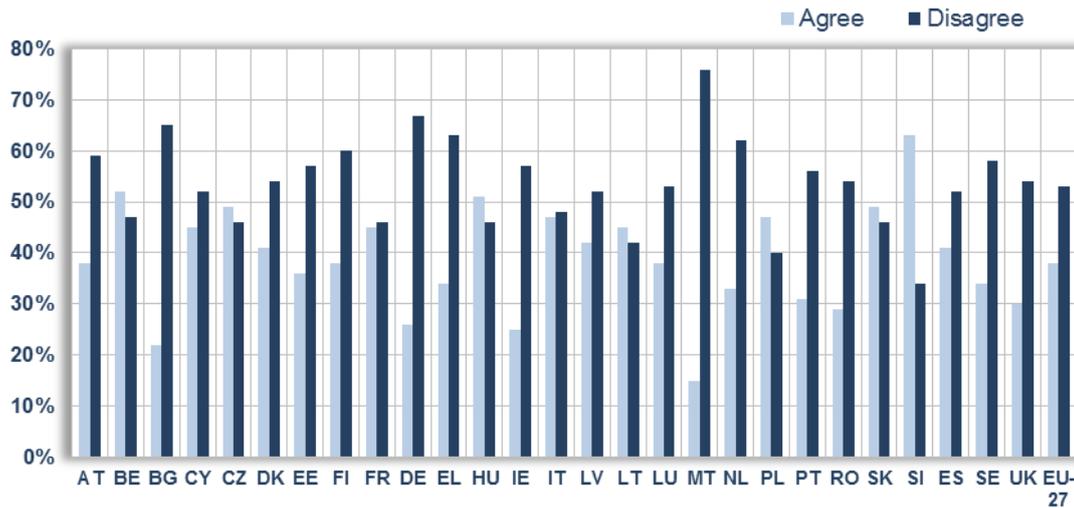
VET leads to jobs which are not well regarded in society: attitudes are fairly positive, with more people disagreeing with this statement than agreeing in most countries (Figure 51). Slovenia is among the few exceptions. People with personal experience of VET are more likely to disagree with this statement: 62% currently taking vocational training and 57% who have taken VET previously compared to 49% who have never taken a VET course. Those who think VET has a positive image in their country are also less likely to agree with the statement (35%, compared to 51% among those who think VET has a negative image).

Figure 50. Agreement with the statement ‘VET leads to jobs which are well-paid’



Source: European Commission (2011a).

Figure 51. Agreement with the statement ‘vocational education and training leads to jobs which are not well regarded in society’



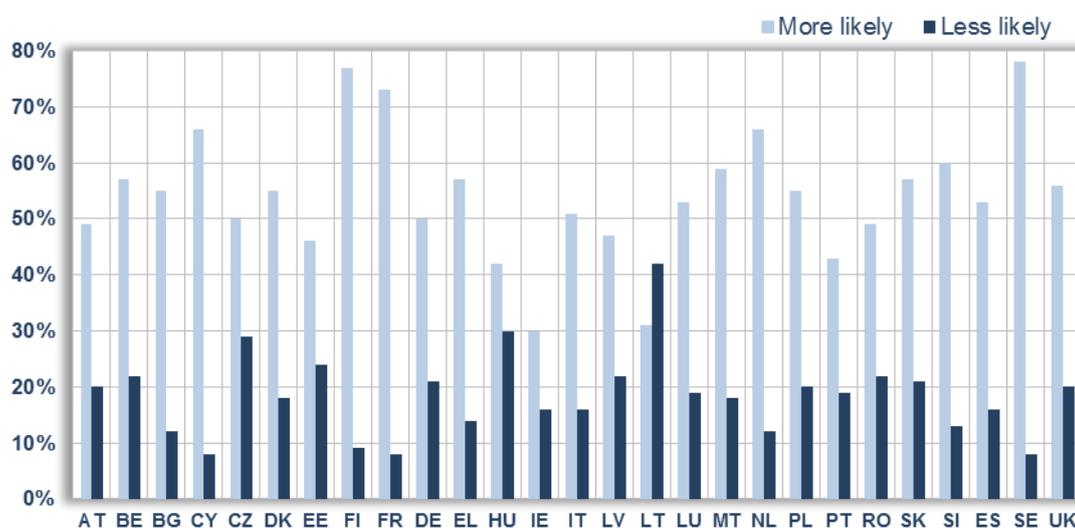
Source: European Commission (2011a).

Do you think that people who completed their VET are more likely or less likely to find a job after their studies? The response here is overwhelmingly positive (Figure 52), the only exception being Lithuania, perhaps reflecting the extremely low level of esteem in which IVET is held in that country (though this is improving). Viewpoints are particularly positive among those taking vocational courses, of whom 63% think that they are more likely to get a job after vocational

training, compared to 58% among those who had undertaken VET in the past, and 54% of those who have never undertaken VET.

Plotting all three of these perceptions of IVET graduate labour market prospects against the overall relative esteem indicator, only the prospect of obtaining employment has a statistically significant correlation with the overall level of attractiveness indicated by the relative esteem indicator (Figure 53). It would be interesting to compare these data on perceptions of labour market outcomes to actual data on these outcomes to gain an understanding of the extent to which these are correlated, or whether they represent the way in which IVET is perceived. This would provide some indication of the mismatch between the true outcomes of IVET and its attractiveness. However, data on labour market outcomes were limited at the time of the analysis (described later).

Figure 52. **Response to the question ‘do you think that people who completed their VET are more likely or less likely to find a job after their studies?’**

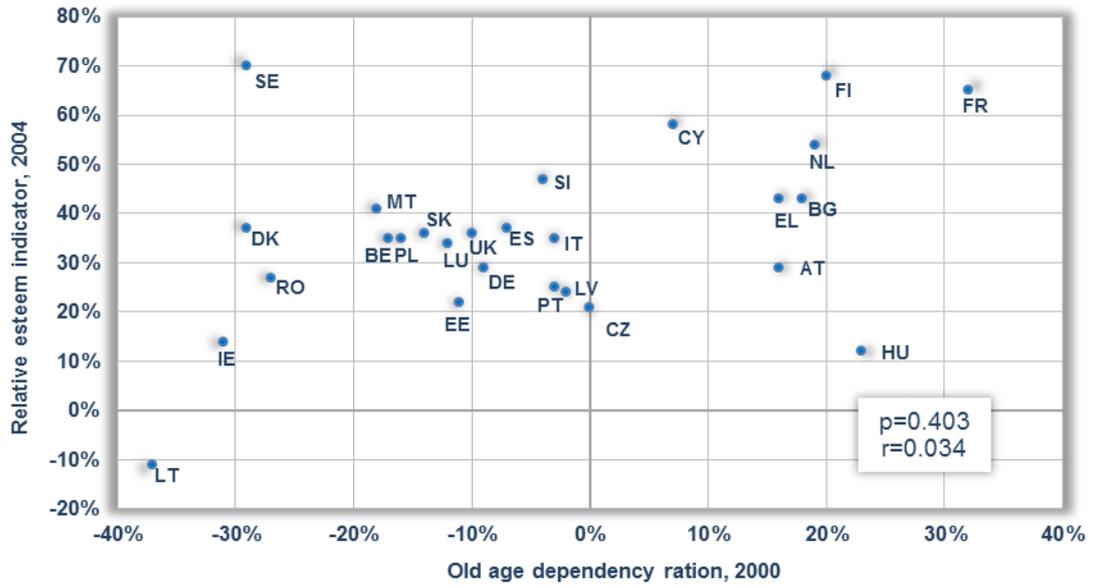


Source: European Commission (2011a).

### 5.2.2. Views of key stakeholders on IVET outcomes

The survey conducted for this study also explored the perceptions of stakeholder groups around the likely outcomes of IVET, although in the context of survey limitations noted earlier. As shown in Figure 54, stakeholder views on the likely outcomes from IVET are generally positive, though not as overwhelmingly so as in the Eurobarometer data. Opinions are divided on whether IVET leads to jobs which are well-paid, and leads to jobs which are well regarded in society. Guidance counsellors were split as to whether IVET leads to professions which are in demand on the labour market, and whether IVET offers good career progress.

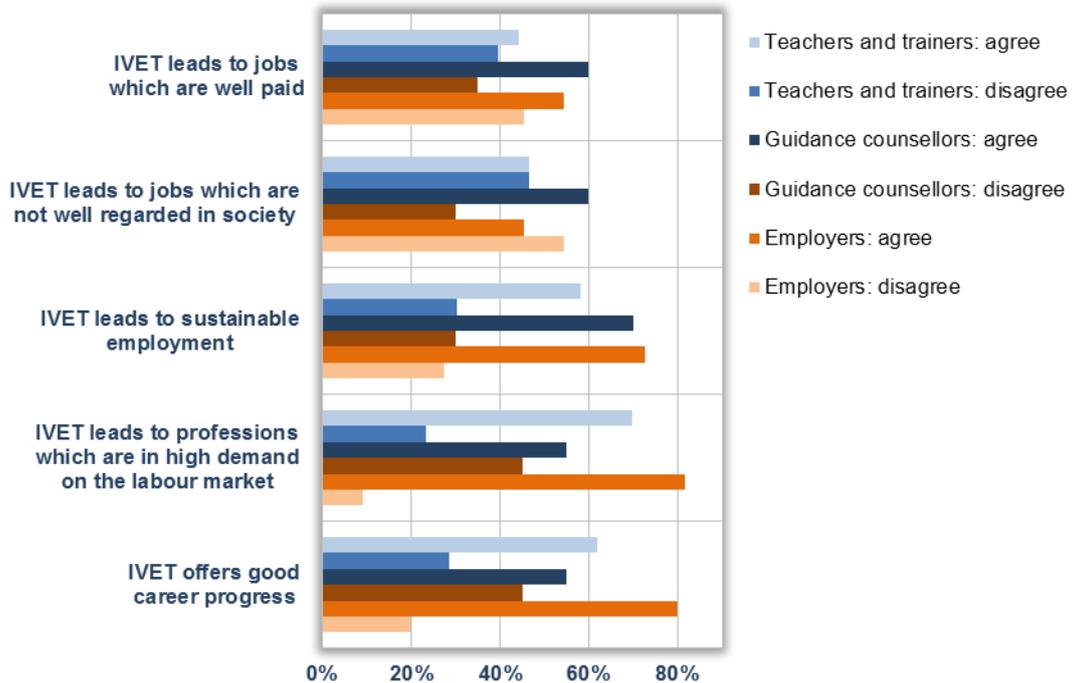
Figure 53. Comparing the relative esteem indicator against indicator of perceptions around likelihood of employment



NB: The relative esteem indicator is the difference in percentage points between the percentage who would recommend IVET and general education; likelihood of employment indicator is the difference in percentage points between the percentage who think that those completing VET are more likely to find employment after completing their studies and the percentage who think they are less likely.

Source: European Commission (2011a); Eurostat/UOE, 2009.

Figure 54. Agreement of stakeholders with several statements regarding the likely outcomes from IVET. Responses from teachers and trainers, guidance counsellors and employers

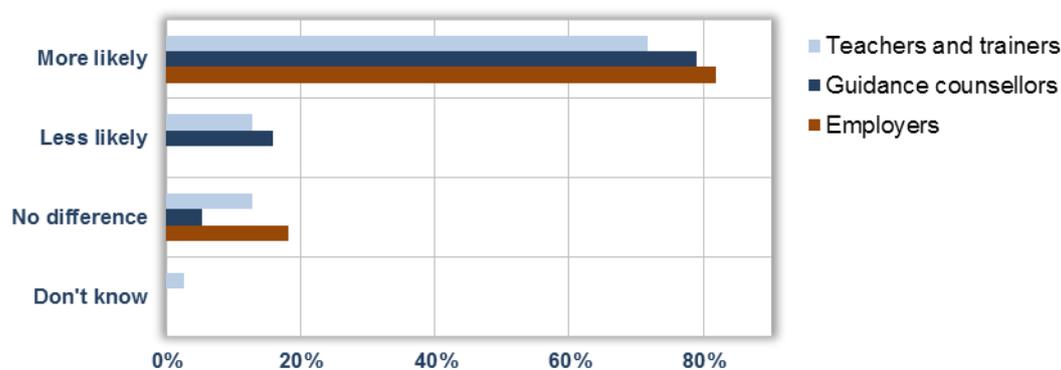


Source: RAND Europe and SKOPE.

The project survey also provides viewpoints from the stakeholder groups on the relative merits of IVET and general upper secondary education with regard to likely employment outcomes, a different approach from Eurobarometer which offers no comparison in this area. The importance of setting IVET in the context of alternative education pathways is shown by the difference between the relative esteem indicator and the image of VET in isolation in the Eurobarometer survey.

As shown in Figure 55, all three stakeholder groups are positive about the relative likelihood of finding employment which uses the skills developed among IVET graduates, compared to those completing general upper secondary education. Key reasons offered for this are the relevance of the skills to employers and the contacts and existing relationships with employers (Figure 56).

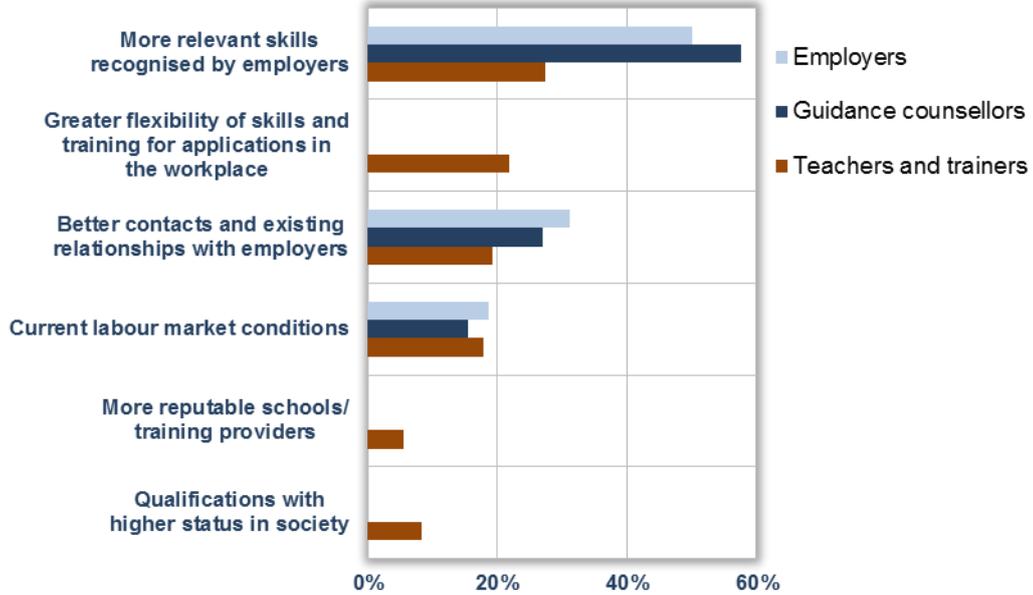
Figure 55. **Do you think that people who complete IVET are more likely or less likely to find a job where they can apply their skills within one year of completing study than people who complete general upper secondary education? Responses from teachers and trainers, guidance counsellors and employers**



Source: RAND Europe and SKOPE.

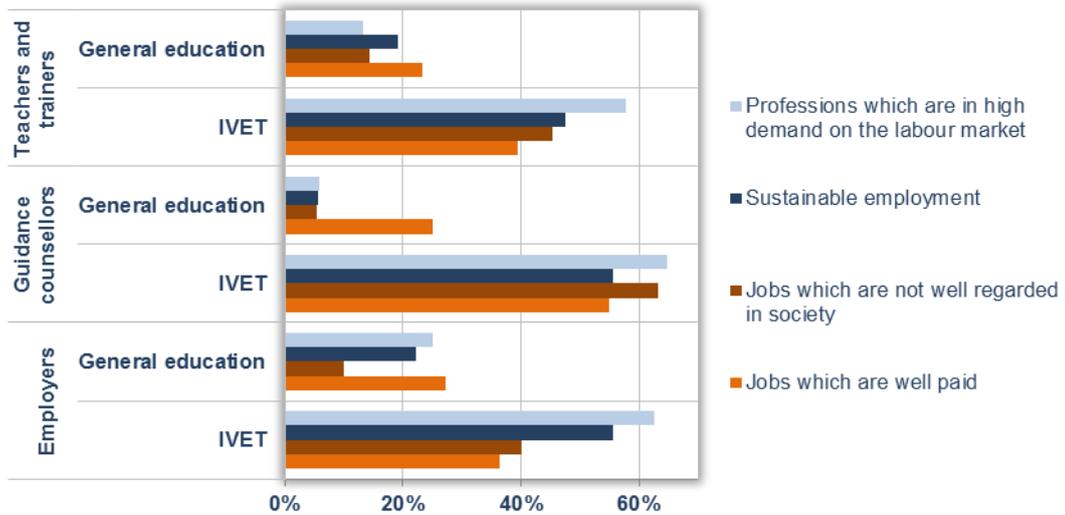
Viewpoints on the quality of employment that IVET graduates are likely to achieve, relative to those completing general upper secondary education, are more mixed (Figure 57). All three groups suggest that IVET is more likely to lead to sustainable employment and jobs which in demand on the labour market. However, all groups also suggest that IVET is more likely to lead to jobs which are not well regarded in society. Views on the likelihood of obtaining a job which is well-paid are more mixed. All stakeholder groups agree that IVET is more likely to lead to well-paid jobs, but only by a small margin.

Figure 56. **Reasons given for the relative likelihood of finding employment by stakeholders. Responses from teachers and trainers, guidance counsellors and employers**



Source: RAND Europe and SKOPE.

Figure 57. **Viewpoints of stakeholders on whether IVET or general upper secondary education is more likely to lead to the outcomes specified. Responses from teachers and trainers, guidance counsellors and employers**



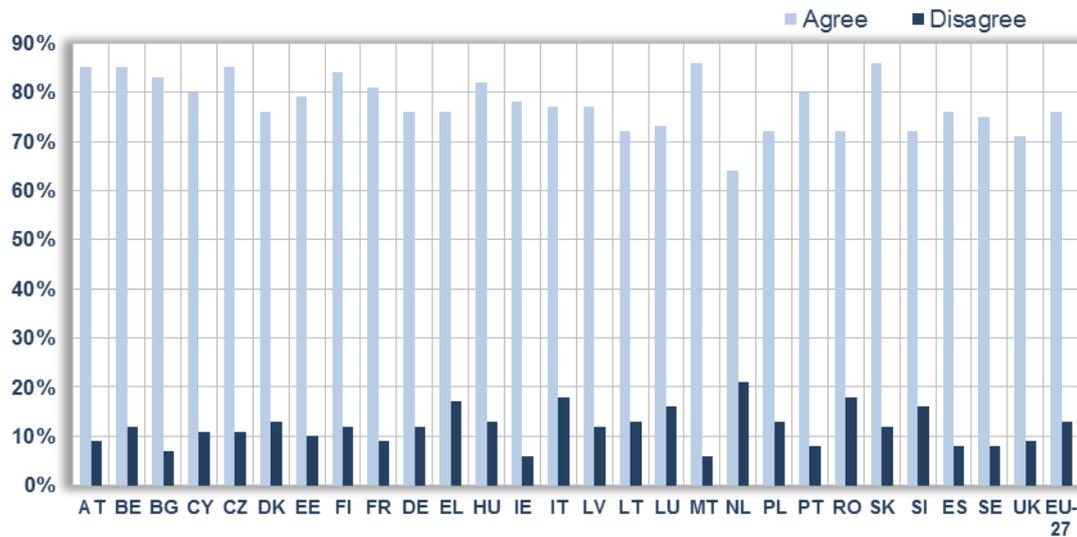
Source: RAND Europe and SKOPE.

**5.2.3. Perceptions around the quality of education in IVET**

Eurobarometer also provides some information around perceptions of education quality, covering both the quality of teaching and training and the overall quality of learning.

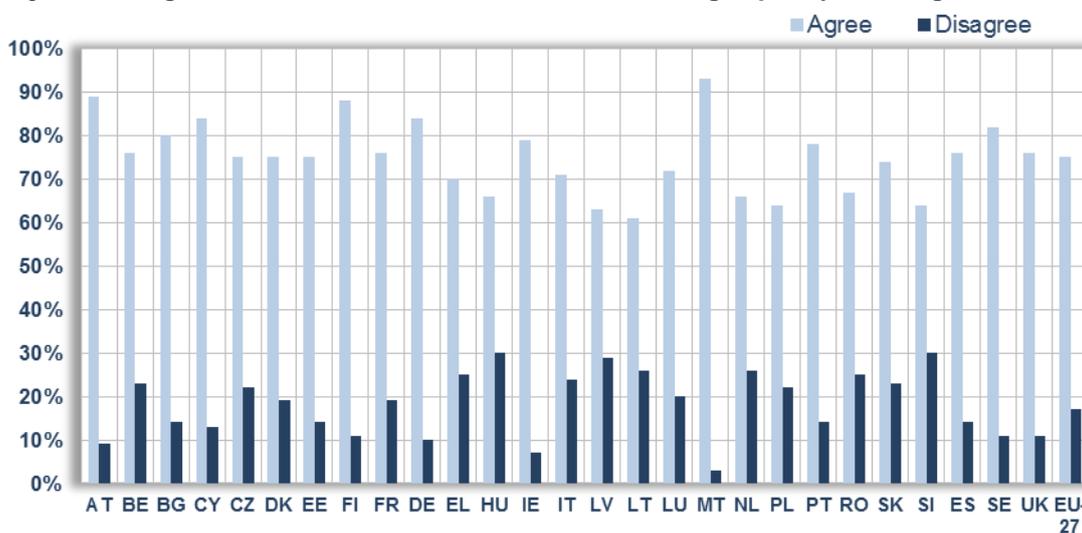
In all countries, for most respondents the quality of both teaching and training and the overall learning experience in VET is high (Figures 58 and 59). Many initiatives improve attractiveness through improving the quality of the education offering in IVET. Evidence here suggests that this is already perceived as being very high.

Figure 58. **Agreement with the statement ‘teachers and trainers in VET are competent’**



Source: European Commission (2011a).

Figure 59. **Agreement with the statement ‘VET offers high-quality learning’**



Source: European Commission (2011a).

However, this should be considered with the data on attractiveness, where the indicator on the overall image of vocational education in the country was overwhelmingly positive, but the relative esteem indicator comparing IVET to general education was less encouraging. The comparison between quality of education in IVET and in general upper secondary education is not made in the Eurobarometer survey, though this would be informative. It would also be useful to compare perceptions to the actual quality of the IVET offering, but is difficult to obtain an objective measure of this, and no appropriate data are available.

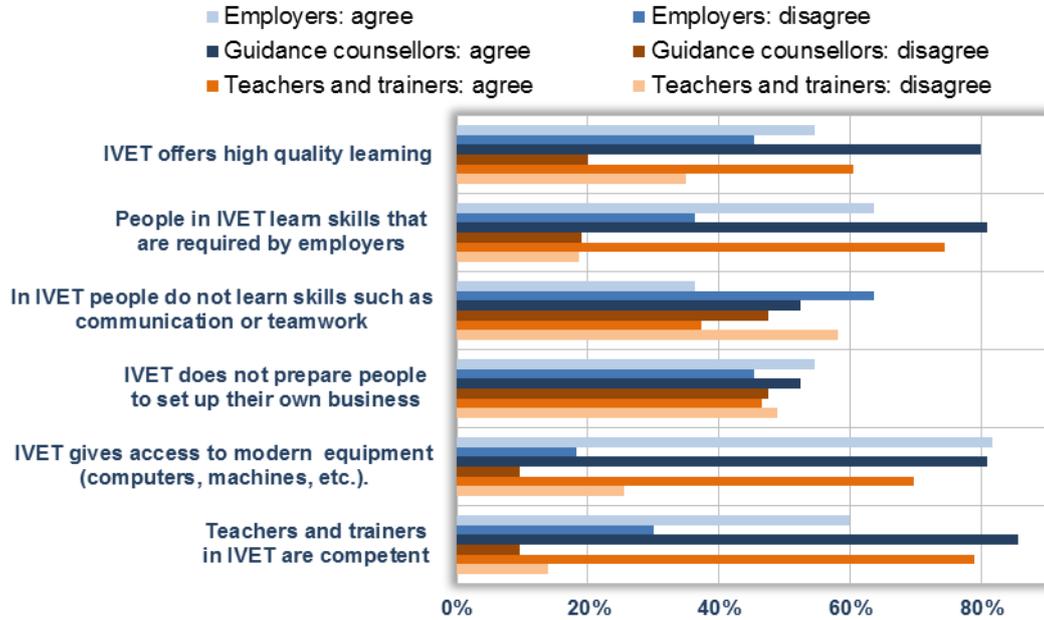
Eurobarometer analysis sheds light on the question of quality in relation to attractiveness, but for all of VET and not just IVET. The report shows a correlation between the overall impression of VET and whether it offers high-quality learning. Three countries – Malta, Austria and Finland – have the highest agreement that VET offers high-quality learning and also have the most positive image of VET. Countries with a relatively negative image of VET, however, are also more likely to disagree that VET offers high-quality learning (Latvia, Lithuania and Slovenia). This suggests that perceptions of VET quality may affect perceptions of overall image.

#### **5.2.4. Stakeholder groups viewpoints on IVET education quality**

Stakeholder views on various statements relating to IVET education quality (Figure 60) are broadly positive. More than half of respondents in all groups suggest that IVET offers high quality learning, provides skills needed by employers, and gives access to modern equipment, plus that teachers and trainers in IVET are competent. Most groups, apart from guidance counsellors, suggest that IVET teaches skills such as communication and teamwork, though views are mixed on whether IVET prepares people to set up their own business. Although this paints a positive picture, comparing IVET to general education gives mixed views (Figure 61).

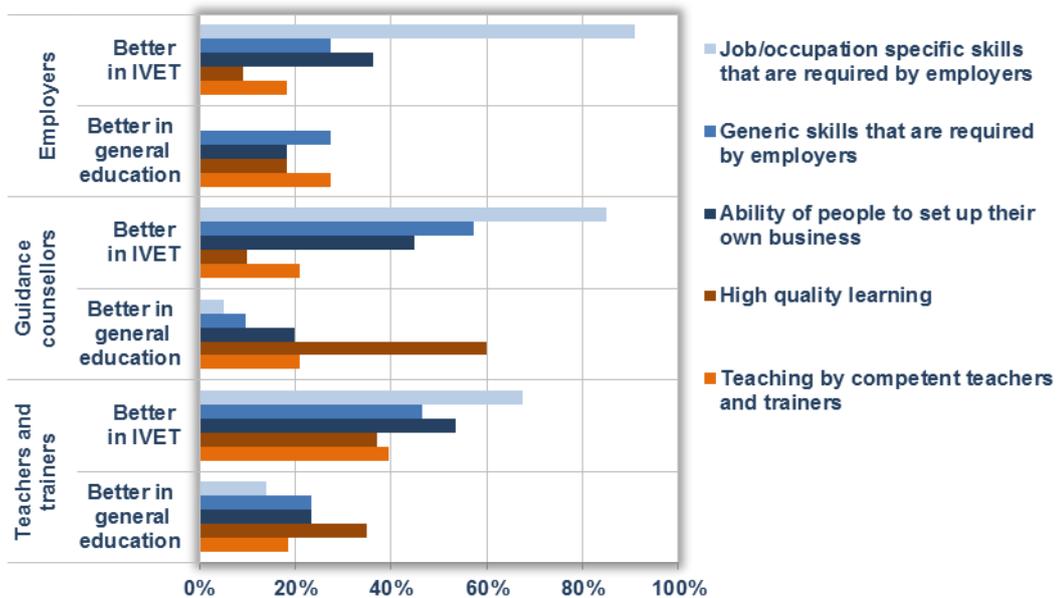
All groups think that specific skills required by employers are provided better by IVET. All think that generic skills required by employers are provided better by IVET, or are closely split between IVET and general education. Most respondents in all groups also believe that IVET better prepares people to start their own business. However, when asked which pathway provides higher quality learning, either general upper secondary education is favoured, or, in the case of teachers and trainers, the two are closely tied. This suggests that IVET is thought to offer more work-related skills and is not thought to be poor quality but general education options are still considered by most to be the higher quality education pathway.

Figure 60. Agreement of stakeholders with a range of statements relating to the quality of IVET education. Responses from teachers and trainers, guidance counsellors and employers



Source: RAND Europe and SKOPE.

Figure 61. Views of stakeholders on whether particular characteristics are better in IVET or general upper secondary education. Responses from teachers and trainers, guidance counsellors and employers

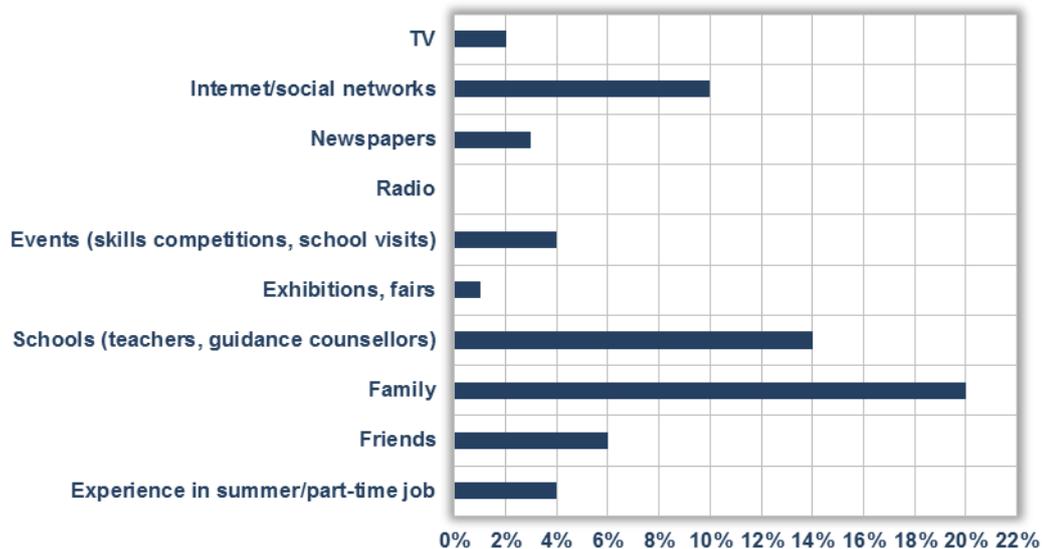


Source: RAND Europe and SKOPE.

### 5.2.5. Influences on student decision-making

The Eurobarometer survey of 2011 provides information on the decision-making process in selecting an educational pathway. This information can help in understanding the factors which may affect attractiveness, and the sources from which students obtain information. It may inform both the targeting of policy initiatives and the design of campaigns to raise IVET attractiveness. It also directly addresses a key focus of the Cedefop project on attractiveness: how and why students make decisions on their educational pathway. The most widely used sources of information on VET were family members and school staff (including teachers and guidance counsellors) (Figure 62). The next most significant was the internet and social networks. It is interesting to note that the TV and exhibitions/fairs were not considered very important as sources of information, whereas these tend to be the media adopted for many national campaigns according to the data on policies gathered for the country fiches.

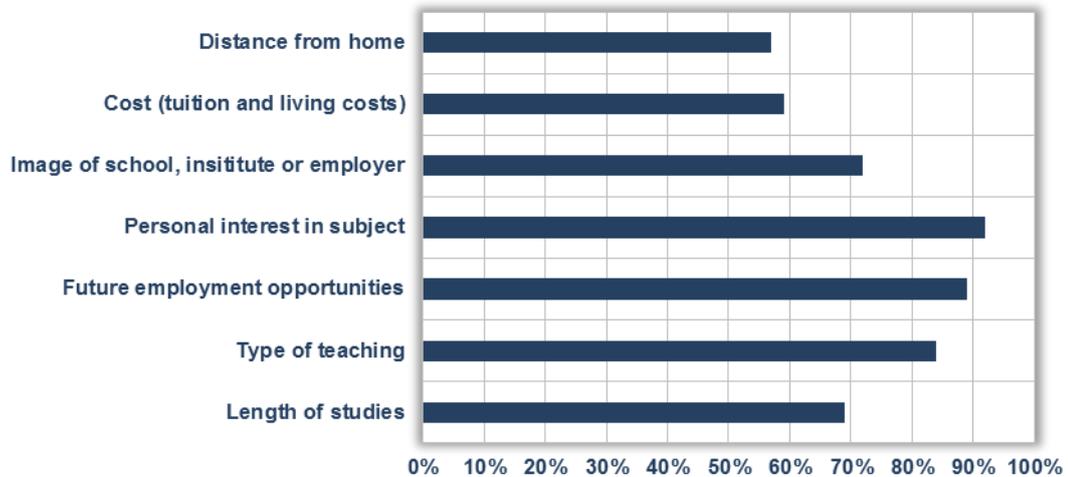
Figure 62. **Percentage of respondents indicating the following sources when asked ‘which of the following sources of advice, if any, have you used or are you using to choose your educational path?’**



Source: European Commission (2011a).

Several considerations are important in the process of selecting an IVET pathway (Figure 63). Personal interest in the subject and future employment opportunities are considered the most important. Fewer than 60% of respondents would consider cost or distance as important factors in their decision-making.

Figure 63. **Percentage of responses when asked ‘when you decided to follow a vocational pathway, how important was each of the following factors to you?’**



Source: European Commission (2011a).

Teachers are considered the most important individual sources of information and advice on career choices, followed by someone from ‘the world of work’ as defined in Eurobarometer survey. This is shown in Figure 64, illustrating some of the fairly significant differences between individual countries on this issue. Teachers are a frequent source of advice in all countries, and the most frequently cited in most countries. By contrast, headmasters are not significantly cited in any country. Family advice is fairly important in all countries, being the most cited source in several countries, and being particularly highly used as a source of advice in central and east European countries such as Bulgaria, Hungary, Austria and Slovakia. Friends are similarly important, being the most frequent source of advice in Belgium, Lithuania, the Netherlands and Finland. The importance of guidance counsellors varies between countries, perhaps reflecting differing levels of guidance and counselling provision: their input is frequently mentioned in Ireland, Austria, Slovenia and Slovakia but infrequently in Bulgaria, Estonia, Greece, Latvia, Poland, Portugal, Romania and the UK. Of these, Bulgaria, Ireland, Portugal and the UK have recently introduced measures to improve guidance and counselling (Chapter 6). This suggests that Austria, Slovenia and Slovakia may already have effective measures for guidance and counselling in place, and that this is something that remains to be addressed in Estonia, Greece, Latvia, Poland and Romania; several of these countries have recognised this as an area for future improvement.

The role of advice from ‘the world of work’ also differs between countries, and is a fairly important source of information in Germany, Hungary and Austria and fairly insignificant in Estonia and Spain. The variation in the overall level of

external input suggested between countries should be noted. In some, a large percentage of people are citing advice from different sources (the Czech Republic, Hungary, Austria, Slovakia), while in others, external advice on the decision taken has been fairly infrequent (Estonia, Greece, Portugal, Finland).

#### **5.2.6. Stakeholder viewpoints on sources of advice and information**

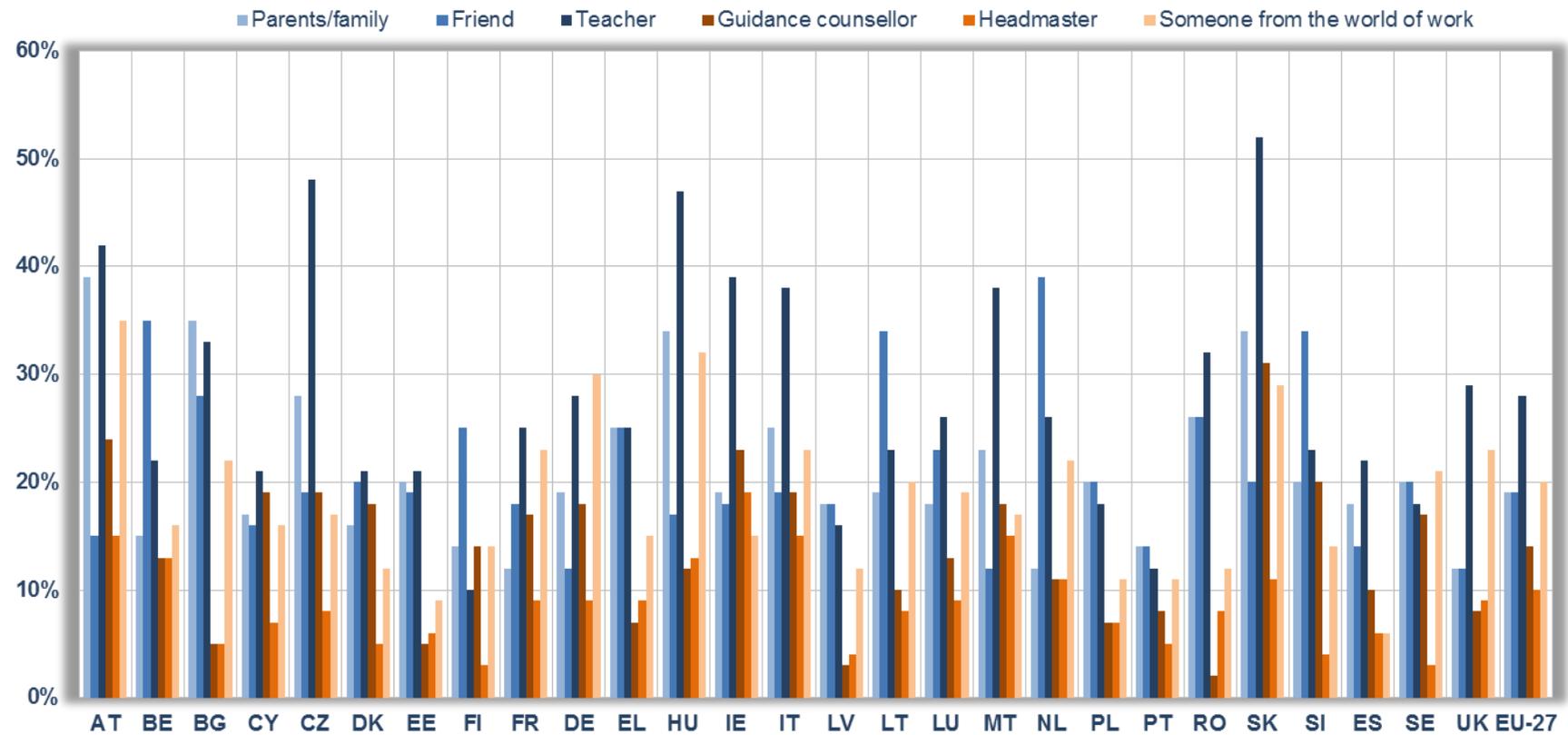
Stakeholders consider family to be a crucial, influential source of information on the educational paths of the young. Friends, and social networks and the internet are also considered important. In contrast to the Eurobarometer survey, teachers and guidance counsellors are not considered the most influential source of information by most (Figure 65).

##### *5.2.6.1. Attractiveness of other education pathways*

A key consideration is the attractiveness of other education pathways, particularly general education at upper secondary level, available to students at the point of deciding to enter IVET. This is reflected in the relative esteem indicator, which gives the attractiveness of IVET relative to general upper secondary education. In countries where general upper secondary education is particularly attractive, relative esteem will be lower even if IVET is also an attractive route. In several countries investigated, the high prestige of university education is mentioned as an important factor. The route to university education is seen as being through general upper secondary education (true in many countries) which may have a bearing on the attractiveness of IVET. Data from the Eurobarometer survey suggest that 68% of people in the EU believe that VET enables people to continue with university studies afterwards, but this varies significantly from 39% in Belgium to 85% in Bulgaria and 86% in Estonia. However, this belief does not have a statistically significant correlation with either the relative esteem indicator in 2011, or indicator on participation levels.

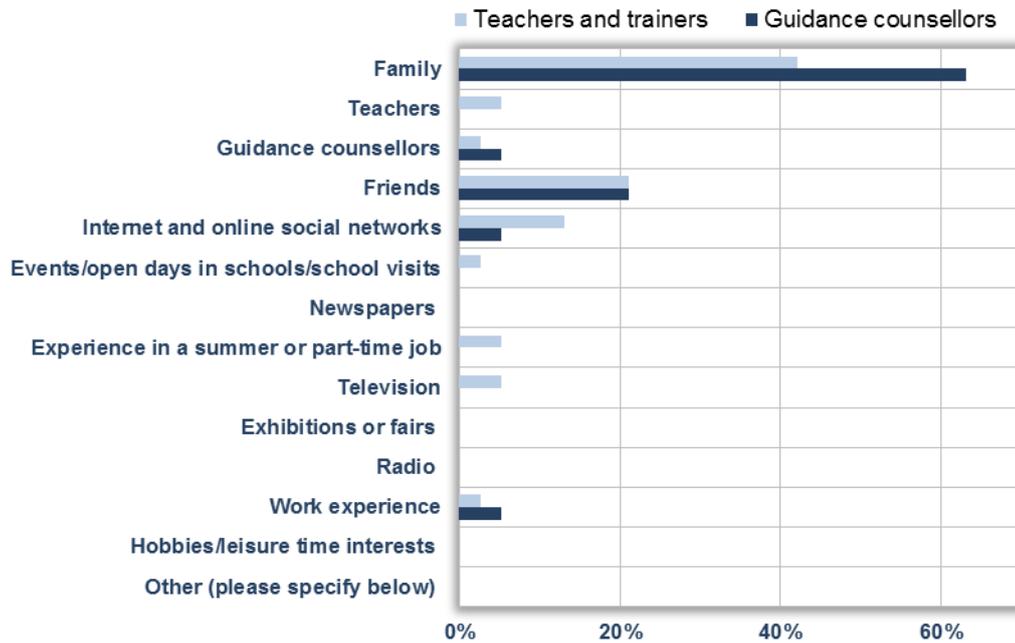
Some of the data from the project survey also offer a useful perspective on the attractiveness of educational pathways. In terms of labour market outcomes, IVET is seen positively, offering access to well-paid jobs and sustainable employment, although the survey suggests these may not be jobs with high social status. Views of the skills offered by IVET are also positive, though most of those surveyed suggest that general upper secondary education offers higher quality learning than IVET. This is reflected by findings from our national interviews with country, with many suggesting that general education in their country and, in particular, the subsequent access to university education, is considered the higher prestige, higher quality route.

Figure 64. Percentage of responders indicating the following sources when asked ‘did any of the following people advise you to choose a specific educational path?’



Source: European Commission (2011a).

Figure 65. Which of the following sources of information have the most influence on young people when choosing their educational path? Responses from teachers and trainers and guidance counsellors



Source: RAND Europe and SKOPE.

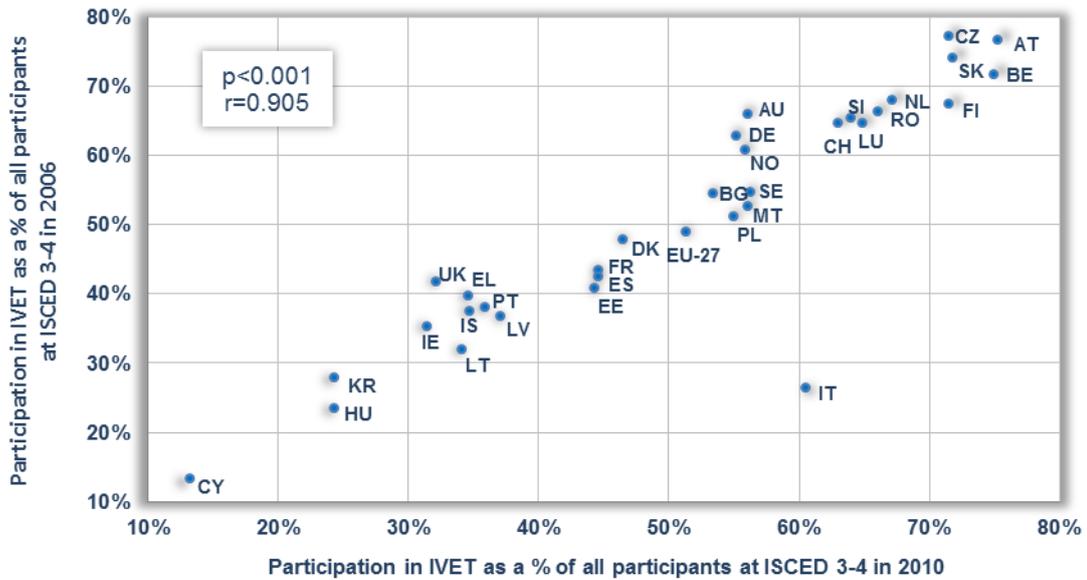
#### 5.2.6.2. Norms of participation in different pathways

Norms can also be an important influence on decision-making. This can be analysed in the context of IVET attractiveness by looking at participation data.

Participation is not correlated with attractiveness as measured by the relative esteem indicator. This suggests that people are continuing to participate in IVET in some countries, despite relatively low attractiveness, due to the ‘norms’ within the country. It might also reflect the availability of different education pathways in those countries. Participation levels in many countries are fairly stable across the years, even where relative esteem is changing (Figures 66 and 67).

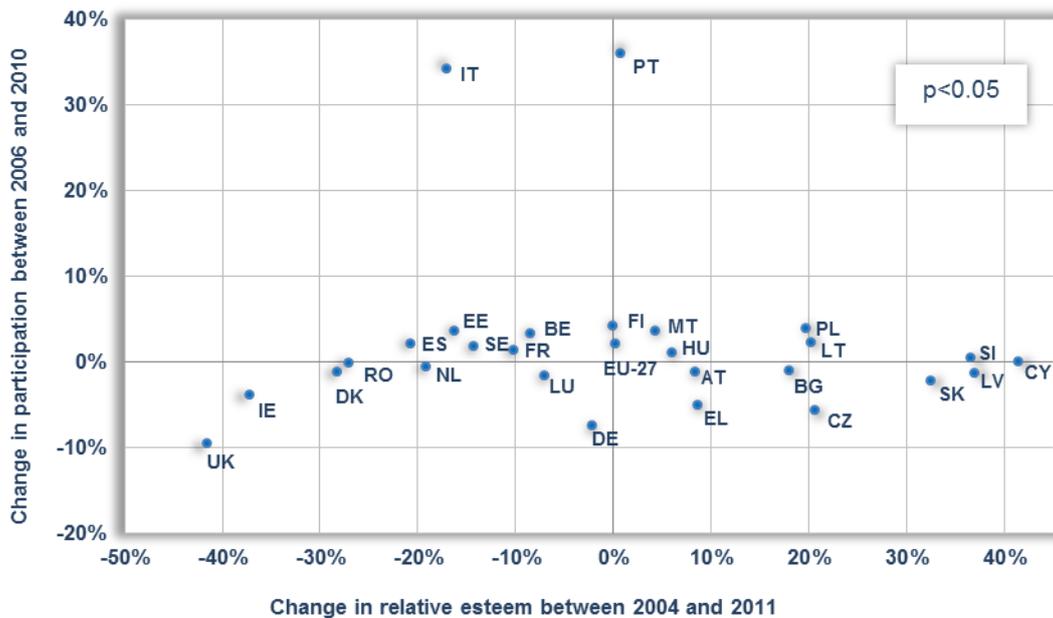
Participation is not related to duration of compulsory schooling usually defined by age of students in a country ( $r=0.153$ ,  $p=.042$ ). This means that higher participation in IVET is not due to enrolment of young people who do not perform well in academic subjects, but must stay in education or training.

Figure 66. Participation in IVET in 2006 against participation in 2010



Source: Eurostat/UOE 2006 and 2010.

Figure 67. Change in participation in IVET as a proportion of all students at ISCED 3-4 between 2006 and 2010 against the change in the relative esteem indicator between 2004 and 2011



Source: Eurostat/UOE 2006 and 2010; European Commission (2011a).

### 5.2.7. Summary

Viewpoints and perceptions around IVET are likely to influence attractiveness; such viewpoints extend beyond young people. This analysis suggests that families, teachers, people from the world of work, and the internet/social media are all important influences on student decision-making and so their perceptions are important.

The analysis also demonstrates the importance of setting IVET in the context of other available education pathways, notably general upper secondary education, when considering how it is perceived. Both quality and labour market relevance are highly rated in the Eurobarometer survey when considered in a non-comparative context. However, there is some suggestion from the survey conducted within this Cedefop project that this may not hold in terms of the quality of IVET when compared to general upper secondary education. This reflects the difference seen when considering the image of IVET rather than the relative esteem indicator in giving an overall picture of attractiveness. Labour market relevance, however, appears to be strong in comparison to general upper secondary education. It is important to understand this comparison to establish the true picture regarding the attractiveness of IVET, so that relative strengths and weaknesses can be assessed.

It is difficult to assess from the data available the extent to which these exogenous supply drivers impact on attractiveness. There is a suggestion that perceptions around the likelihood of finding employment after IVET are correlated with relative esteem. This is supported by evidence, from both the project survey and the Eurobarometer survey, that, alongside personal interest, future employment prospects are a crucial to students considering different education pathways. What emerges here is the possible significance of norms in explaining the disconnect between levels of attractiveness as measured by the relative esteem indicator and levels of participation in IVET. It seems that, even where levels of relative esteem are changing significantly, participation is stable in most countries. The fact that participation is not related to compulsory schooling age also supports this conclusion.

## 5.3. Endogenous drivers of IVET attractiveness

Endogenous drivers generally reflect the nature of IVET provision in the country, and can refer to permeability of pathways, access to higher education, quality of provision, and availability of work-based learning. IVET systems, and education and training systems more widely, vary significantly between countries; the structure and nature of IVET provision, as distinct from wider social and economic

factors, are a significant determinant of the attractiveness of IVET to both students and employers. Since these systems differ on a country-by-country basis, reflecting different political contexts and differences in the historical development of IVET, among other factors, it is challenging to assess the importance of the nature of provision to the attractiveness of IVET since direct comparisons between countries often mask significant underlying differences. To make any progress in this type of analysis, it is necessary to rationalise the education and training systems in different countries using a classification system. Doing this has its drawbacks as it generalises between countries in ways that may be inappropriate, and the classification will be on the basis of one particular element of the education and training system and may neglect differences in other areas. In this analysis, which draws on the classification system developed in the Cedefop (2011a) report *Vocational education and training is good for you*, 15 countries are classified into five groupings, as follows:

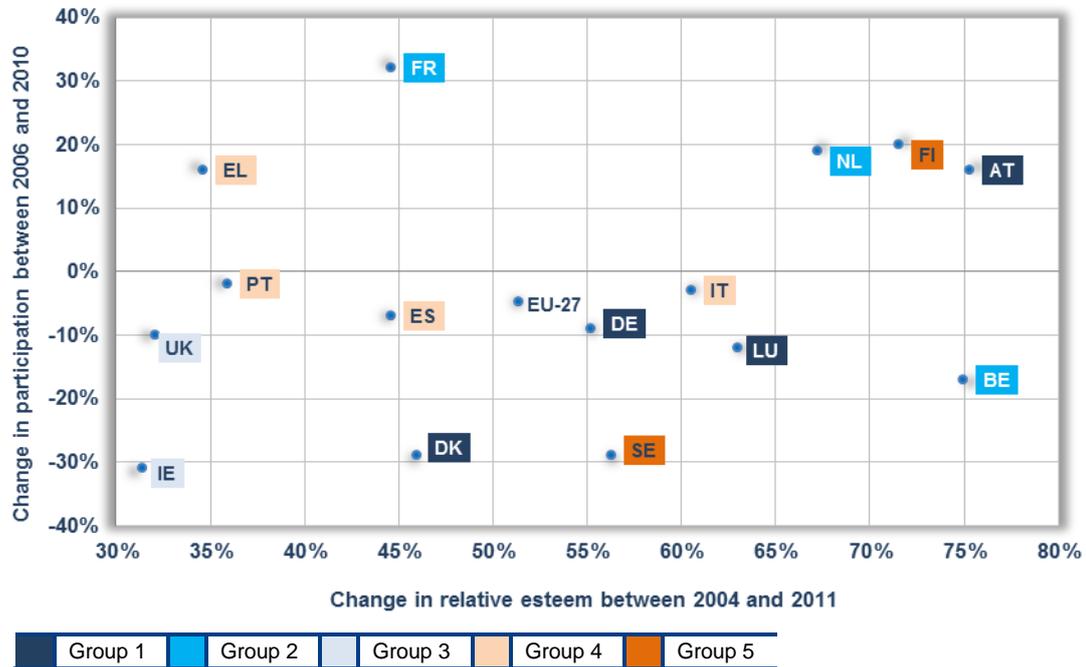
- (a) group 1: apprenticeship-based. Denmark, Germany, Luxembourg, Austria;
- (b) group 2: continental school-based. Belgium, France, the Netherlands;
- (c) group 3: market-led. Ireland, the UK;
- (d) group 4: general education. Greece, Spain, Italy, Portugal;
- (e) group 5: egalitarian school-based. Finland, Sweden.

These groupings are broadly defined as follows:

- (a) apprenticeship-based system: characterised by alternating education between schools, where theoretical aspects are taught, and the workplace, where practical skills and competences are taught. This is supported by a tripartite collaboration between the State, unions and employers associations which oversees occupational profiles and qualifications;
- (b) continental school-based system: characterised by learning in school (though with some level of workplace learning, differing between countries), and generally centralised control of the IVET system;
- (c) market-led system: though IVET is predominantly provided by the State, it is not highly regulated or centralised. Independent bodies regulated by the State supply IVET qualifications. Employers are involved in IVET, rather than other social partners;
- (d) system of general education: general education makes up most education pathways available, and where IVET is available, it typically takes the form of on-the-job training at the workplace;
- (e) egalitarian school-based system: an IVET system which is embedded in a national education system which strives for equality of opportunity, and where general and vocational pathways are integrated in the same school with more flexibility and permeability, and good access to higher education.

Using this classification, Figure 68 shows relative esteem and participation for different types of VET system in the EU-15 Member States.

Figure 68. **Relative esteem against participation in IVET for countries with different types of education and training system**



Source: Eurostat/UOE 2010; European Commission (20058; 2011a).

The data set here is relatively small, but several trends emerge. Groups 3 and 4 seem to have relatively low participation compared to the EU average, while participation in countries in group 1 and 2 seems relatively high. In terms of esteem the picture is mixed: group 3 seems to have low relative esteem, while in group 4 esteem appears to be above average in most cases. This suggests that market-led systems do not lead to high levels of IVET attractiveness, though, with such a small sample, this is hard to determine conclusively. Given that countries with similar IVET systems also seem to be geographically close, there may be wider factors common to them. For example, group 3 has only two countries, Ireland and the UK, which have many other cultural similarities and close economic ties; it is hard to conclude that the relatively low level of attractiveness of IVET in these countries is solely due to some of the similarities in their mode of providing IVET.

Besides quantitative analysis, we can also draw on the desk research findings on this subject as described in Chapter 2. Key factors of VET attractiveness identified in other studies, which have primarily focused on endogenous drivers,

include labour market relevance, accessibility, provision of guidance, assured quality of education offered, and self-development choices (Leney et al., 2004; Watters, 2009; Lasonen and Gordon, 2009). All these emerge as areas which have received attention in the policy initiatives introduced across Europe, as described in the following chapter. However, it is difficult to analyse the extent to which these factors influence attractiveness, since an objective measure of each across countries is not available.

Data from the survey also offer some perspectives on the quality and relevance of IVET systems as discussed above, though not by country. Broadly the IVET system in most countries is seen as relevant to the labour market and, when considered independently of other pathways, of high quality. However, quality may be less favourably considered when placed relative to general upper secondary education. Further, it is difficult to tell whether this is an accurate representation of the true situation in the country, or to what extent this is influenced by how IVET is viewed and personal perspectives.

### **Summary**

Previous studies have laid out endogenous drivers, such as labour market relevance, accessibility, provision of guidance, assured quality of education offered, and self-development choices, but lack of suitable quantitative data makes it difficult in this project to analyse the impact of such drivers on the attractiveness of IVET. Survey and Eurobarometer data support the importance of labour market relevance to attractiveness. Contrasting broad classifications of IVET systems, there is some suggestion that market-led systems, such as those used in Ireland and the UK in particular, do not lead to high levels of IVET attractiveness.

## **5.4. IVET outcomes and the attractiveness**

The conceptual framework identifies several key outcomes of the IVET system which may be relevant to its attractiveness:

- (a) dropout rate;
- (b) graduate employment rate;
- (c) graduate structural unemployment;
- (d) educational achievement;
- (e) VET graduate higher education enrolment.

Data on these outcomes, specifically in relation to IVET, are limited. However, data are available on overall early leaving education levels and on the level of educational attainment at population level. Neither of these measures appears to be correlated with either relative esteem or participation levels in IVET.

Data are also available on the wage premiums for differing levels of education in several countries, comparing IVET to lower secondary education, general upper secondary education, and tertiary education. These data are described in Chapter 3. However, there does not appear to be any correlation between these outcomes measures and either relative esteem or levels of participation in IVET.

As described in Chapter 3, information is available for several countries on the relative employment rate of young people with ISCED 5-6 and ISCED 3-4 qualifications. This is not found to be significantly correlated to relative esteem, but appears to be significantly negatively correlated with participation in IVET ( $r=-0.613$ ,  $p<0.001$ ).

More specific information on the outcomes for IVET graduates at European level would be valuable and would enable analysis of the true quality and outcomes of IVET for young people. However, these data are not available <sup>(22)</sup>. There is some evidence that perceptions of IVET labour market relevance are linked to relative esteem, which suggests that such outcomes might be significant in influencing attractiveness. There is also evidence from the interviews that, anecdotally, access to higher education is an important factor: this is also found in the data from the survey conducted for this study, but it is not clear from the Eurobarometer data on perceptions around access to higher education from IVET. However, what these outcomes look like, and whether they match perceptions of them, and hence are linked to attractiveness, is not clear. The fact that the data have not been widely available suggests that some outcomes of IVET are not being effectively communicated, which raises the possibility of a mismatch between reality and perceptions of the outcomes of IVET. This relationship is interesting, and could be important to address, but it is not possible to analyse without improved data at European level.

## Summary

Where data are available, it seems that outcomes are not significantly correlated with indicators on attractiveness. This is shown in Table 4, where X indicates no statistically significant correlation. Although we can infer from the survey data (both Eurobarometer and the project survey) that factors such as labour market relevance and access to higher education are likely to be important for attractiveness, it is not possible to determine this from the data examined. Also, this scarcity of data increases the likelihood that outcomes are not being well

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<sup>(22)</sup> Cedefop report *From education to working life: the labour market outcomes of vocational education and training* uses the EU labour force survey 2009 ad hoc module to analyse cross-country comparisons of VET and labour market outcomes (Cedefop, 2012).

communicated, which could have important policy implications. This is an interesting area that warrants further investigation.

Table 4. **Relationships between selected IVET outcomes and indicators on attractiveness**

	Participation in IVET as % of all participants at ISCED 3-4 (2010)	Relative esteem indicator (2011)	Relative esteem indicator (2004)
Overall early leavers from education level	X	X	X
Educational attainment at population level	X	X	X
Wage premiums for differing levels of education	X	X	X
Relative employment rate of young people with ISCED 5-6 and ISCED 3-4 qualifications	Yes, negative (-0.61)	X	X

Source: RAND Europe and SKOPE.

## 5.5. Overview: driver influence on IVET attractiveness

There follows a summary of the key points from analyses of the influence of various drivers on the attractiveness of IVET.

### 5.5.1. Exogenous demand drivers: what matters

The following exogenous demand drivers were found to influence attractiveness:

- (a) expenditure on vocational education;
- (b) the composition of the labour market;
- (c) demographics and migration, although their influence is not clear.

It is possible to identify relationships between several potential exogenous demand drivers of attractiveness and measures of attractiveness. Spending on vocational education (measured as a percentage of GDP or per capita), and the composition of the labour market in a country are noted as significant influences. Unemployment also has an impact on participation, though not on other indicators on attractiveness. The relationship between migration and demographics and attractiveness is complex and not clear from existing data, although there is some indication that relative esteem is negatively correlated with the size of the young population and the old-age dependency ratio.

### 5.5.2. Exogenous supply drivers: what matters

The following conclusions on exogenous supply drivers of attractiveness were reached:

- (a) the views of family are particularly influential;

- (b) teachers, people from the world of work, and the internet/social media are also widely used as sources of information;
- (c) there are some suggestions that perceptions around labour market relevance are important;
- (d) it is difficult to compare perceptions to true outcomes due to data limitations, and difficult to compare to attractiveness;
- (e) it is important to compare IVET to general upper secondary education to get a real impression of perceptions around IVET.

Viewpoints and perceptions around IVET are likely to influence attractiveness, and these viewpoints extend beyond young people. This analysis suggests that families, teachers, people from the world of work, and the internet/social media are all important influences on student decision-making and so their perceptions are important. The analysis also demonstrates the importance of setting IVET in the context of other available education pathways, notably general upper secondary education, when considering how it is perceived. Both quality and labour market relevance are highly rated in the Eurobarometer survey when considered in a non-comparative context, but there is some suggestion from the survey conducted within this project that this may not hold in terms of the quality of IVET when compared to general upper secondary education. Labour market relevance, however, appears to be strong in comparison to general upper secondary education. Given the nature of the data available, it is difficult to assess the extent to which these exogenous supply drivers impact on attractiveness. There is some suggestion that perception around the likelihood of finding employment after IVET is correlated with relative esteem. This is supported by evidence from both the project and the Eurobarometer surveys, that, alongside personal interest, future employment prospects are crucial for students considering different education pathways. What does emerge here is the possible significance of norms in explaining the disconnect between level of attractiveness as measured by relative esteem and levels of participation in IVET. It seems that even where levels of relative esteem are changing significantly, participation is stable in most countries.

#### **5.5.3. Endogenous drivers: what matters**

It has proved difficult to measure the role of endogenous drivers, and difficult to separate them from other factors which may be influencing attractiveness. However, there is some suggestion that market-led IVET systems may be less attractive than other systems.

#### **5.5.4. IVET outcomes: what matters**

Data availability is a key challenge in linking IVET outcomes to attractiveness. Where data are available, it seems that outcomes are not strongly correlated with

attractiveness measures. However, when this research was conducted, there were few data available on the direct outcomes of IVET, such as IVET graduate employment rates or higher education enrolment. Analysis of this relationship is an undertaking for future research.

#### **5.5.5. Limitations**

The above summary has several limitations. First, it is based on the data available at the time the study was conducted: there may be other important influences on IVET attractiveness that are not included simply because data are not available at European level. Second, the analysis treats IVET within countries as homogenous. It is clear that this is not the case, and within countries there are likely to be a wide range of different IVET pathways, among which both attractiveness and the influence of different drivers are likely to differ significantly. For example, in a particular country there may be high demand in one sector of the labour market, making IVET pathways leading to those professions highly attractive, where other pathways are much less attractive. This analysis is not able to identify those types of difference. As such, this is a simplistic picture, and is likely to identify fewer factors as influences than is truly the case. However, it is likely that those factors which are identified as having an impact on attractiveness, even at this aggregated scale, are some of the most important overall influences.

## CHAPTER 6.

# Policy approaches

Various policy initiatives have been introduced to help make IVET more attractive. The research literature notes several broad policy objectives; single initiatives may encompass multiple objectives <sup>(23)</sup>:

- (a) improving the permeability of educational pathways by offering access to other education and training opportunities may increase the attractiveness of IVET because it responds to individual needs: examples include offer more courses, modularise courses, double-qualifying or bridging programmes, improving access to higher education. Note that permeability measures can serve to attract the most qualified, as in creating pathways from IVET to higher education, or to accommodate better disadvantaged or less qualified entrants, such as creating smaller, cumulative units of learning through modularisation;
- (b) expand opportunities to access higher education through double-qualifying pathways; examination systems open to all secondary students; additional preparatory courses or exams for IVET students (bridging programmes); acknowledging equivalent vocational qualifications for academic study courses (credit transfer arrangements); and introducing specialised vocational-oriented courses at tertiary level;
- (c) promote work-based learning to attract students who prefer a more practical path or the possibility of learning on the job while working. Also engage with employers and social partners to increase the relevance of IVET and to gain their cooperation to engage in providing work-based learning opportunities including apprenticeships. Attractiveness increases when IVET qualifications have currency in the labour market;
- (d) improve access for special groups, including low-skilled, disabled and socially and economically less advantaged young people, older non-traditional students, ethnic minorities, and migrants to help ensure their employability. Programmes for special groups may be less demanding (e.g. set at ISCED 2);
- (e) improve the quality of IVET by various actions developing and implementing national quality assurance frameworks; implementing procedures for quality assurance assessment; involving stakeholders in the quality assurance

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<sup>(23)</sup> This general list is derived from a variety of sources, including: Cedefop (2009a; 2009b; 2010a; 2010b); Leney et al. (2004); Tchibozo (2009); Watters (2009); Young (2000).

- process; and updating teachers' and work-based instructors' technical and pedagogical knowledge;
- (f) increase the transparency of qualifications and programmes, through such measures as developing national qualification frameworks (NQF) and adopting European frameworks, such as the European credit system for vocational education and training (ECVET);
  - (g) recognise and validate non-formal and informal learning, by the assessment of knowledge, skills and competences acquired; this can contribute to the accessibility of new or higher level qualifications and open up new formal learning opportunities for individuals who would not otherwise be admitted to a particular programme;
  - (h) improve guidance and counselling systems so that students have adequate, reliable and up-to-date information before making choices about IVET programmes;
  - (i) emphasise skill development in IVET through such means as skills competitions and award ceremonies. Cross-national or international skills competitions also serve to promote IVET internationality and mobility;
  - (j) raise IVET awareness through media campaigns that on VET programmes and labour market prospects using the internet, television or other media.

Countries will develop and implement policy initiatives to increase the attractiveness of IVET based on problems and issues identified within their own context and constraints. They may also respond to Europe-wide initiatives that align with national policy objectives or adopt them voluntarily in the spirit of open coordination.

This section of the report first presents the measures and initiatives taken to raise the attractiveness of IVET, as identified in the country fiches. It then presents patterns and trends across the countries and some analyses that relate policy measures to indicators on attractiveness.

The sources for each country fiche are the most current ReferNet reports (available for most countries), supplemented by other documentation such as ministry reports and comparative studies, and interviews. The cut-off date for inclusion was March 2012 so initiatives may not be mentioned if initiated after this date; measures which are in process and part of day-to-day operations may not be singled out for mention in documentation and reports. Also, policies and measures may arise from local efforts, especially in countries where responsibility for IVET delivery is decentralised (such as, Germany for school-based types of IVET and Norway).

A validation workshop was held in November 2012. Participants were given the opportunity to review and provide feedback on the draft fiche related to their country. Any feedback received by 1 December 2012 was incorporated into the final versions of the country fiche and the results presented here.

## 6.1. Policy measures taken to increase attractiveness

The measures taken to increase IVET attractiveness are shown in Table 5. Desk research and key informant interviews are used to identify the most important measures being taken. In some cases the specific intention of the measure is unclear, and these cases are included in the list to capture the widest range of measures. The table also notes those measures mentioned in an earlier study on progress in modernising VET within the Copenhagen process of cooperation, carried out to prepare for the ministerial meeting held in Maastricht on 14 December 2004 (Leney et al., 2004). Measures implemented on a pilot basis are not included in Table 5 <sup>(24)</sup>.

Excluded from the discussion are measures that European countries agreed to introduce as part of the open method of coordination, even if the sources indicate that the initiative aims to raise attractiveness. Countries have agreed to implement development of quality assurance mechanisms and national qualification frameworks (in relation to European-wide frameworks such as the EQAVET, the EQF or the ECVET) and measures to recognise or validate prior learning <sup>(25)</sup>. There is progress in these areas because of deadlines agreed in EU policy documents, but they may also have positive impacts on the attractiveness of VET.

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<sup>(24)</sup> Table B1 in Annex B provides fuller information on measures taken, to include measures that may also increase attractiveness (although not specifically intended to do so according to the sources examined) and measures currently being piloted or planned.

<sup>(25)</sup> About half the countries mentioned initiatives related to improving quality processes or adopting quality frameworks. About half mentioned measures related to increasing transparency via development of their qualification frameworks. Around one-fourth mentioned measures related to recognition of prior learning.

Table 5. **Reported measures intended to raise the attractiveness of IVET for students, by country**

Belgium (Flanders)	Plans to upgrade school-based IVET by introducing a 'dual system' Consolidating post-secondary IVET and developing a new 'professional (VET) track' from secondary to tertiary levels Completing the modularisation of part-time VET Established the Agency for Quality Assurance and formalised school responsibilities for quality monitoring
Bulgaria	Skills competitions Modernising equipment and VET schools Improvements to guidance and advice
Czech Republic	Improvements to guidance and counselling* Increase cooperation with social partners Financial incentives Campaigns to raise awareness
Denmark	Improve permeability of educational pathways (modularisation) 'Quality patrol' of VET schools Skills competitions Financial incentives Campaigns to raise awareness Modernising equipment and VET schools
Germany	Increase number of training places in the dual system (with special measures for migrants, disadvantaged) Integrate provision within regions to align better with labour demands Second-chance qualification for unskilled young adults Structural coordination to improve transitions between different sectors of education and training Improve access from VET to higher education
Estonia	Improve quality of facilities Improve teacher quality Campaigns to raise awareness Skills competitions
Ireland	Establishment of a Further Education and Training Authority to improve the quality, efficiency and visibility of the sector Amalgamation of the qualifications/quality assurance bodies for further education and training (FET) and higher education to enhance lifelong learning Continued commitment to the national skills strategy and support for FET to meet recession-related demands
Greece	Improve access from VET to higher education* Financial incentives (vouchers for IVET) Campaigns to raise awareness
Spain	Improve engagement with social partners Promote work-based learning Improve permeability of pathways Skills competitions
France	Accredit vocational institutions Improvements to guidance and counselling Reform IVET curriculum
Italy	Reorganisation and integration of educational services Improve permeability of pathways Improve teacher quality Strengthen link between education and work

Cyprus	Upgrading of the apprenticeship system* Creation of VET programmes in higher education/access to higher education via VET* Study on the organisation of secondary technical and vocational education (technical and practical directions) Developing the infrastructure of technical schools New arrangements for foreign students Evening schools
Latvia	Financial incentives Campaigns to raise awareness
Lithuania	Improve access from VET to higher education Reorganise VET schools to promote stakeholder engagement Campaigns to raise awareness
Luxembourg	Improve permeability of pathways Strengthen relationships with social partners Create the Agency for Development of Quality in Schools (2009)
Hungary	Financial incentives (apprentices, employers) Skills competitions Improve teacher quality
Malta	Training in specific fields of activity according to new investors Improve permeability of pathways Improve teacher quality Campaigns to raise awareness Financial incentives
Netherlands	Improve permeability of pathways Skills competitions Improvements to guidance and counselling
Austria	Orientation of curricula to competence-based learning* Improve training of teachers and trainers (including training in competence-based pedagogy to support curriculum changes) Additions to apprenticeship system (training workshops) Financial incentives
Poland	New regulations to improve teaching Improve permeability of pathways
Portugal	Accreditation system for training providers Improving teacher education Increase number of vocational qualification providers Campaigns to raise awareness Skills competitions
Romania	Development of inter-institutional assistance networks Introduction of 'training firms' (for work-related learning) Improvements to teacher quality Second-chance option for early school leavers
Slovenia	Campaigns to raise awareness Improve permeability of pathways Improve quality through certification of providers
Slovakia	Campaigns to raise awareness (especially targeted at students in lower secondary education and their parents) Outreach by VET schools to raise enrolment 2009 Act on VET initiated by employers New VET governance created Regional VET centres established as centres of excellence New IVET curricula design (2008) VET schools programmes adjusted to labour market needs (2012)

Finland	Campaigns to raise awareness Skills competitions Joint national application system for upper secondary education
Sweden	Increase time allocation for vocational subjects in VET programmes Introduce apprenticeship training* Establishment of National Programme Council for every IVET programme Increased funding for upper secondary adult education
United Kingdom (England)	Improvements to guidance and counselling Campaigns to raise awareness Financial incentives (for apprenticeships) Expansion of apprenticeships Transition from IVET to higher education* Establishment of university technical colleges for IVET
Australia	Trade training centres in schools programme (2008-18) to improve relevance of trade training, including facility upgrades VET quality framework (2005) to raise standards and consistency in registration, monitoring of VET providers User choice (1998) enables students, apprentices, employers to choose off-the-job training provider; government funds selected provider
Iceland	Improve permeability between all education programmes and levels Financial incentives (for companies to hire VET graduates) Campaigns to raise awareness Skills competitions Provision of upper secondary education up to age 25 Improvements to guidance and counselling
Norway	Access to higher education* Curriculum reform to reflect knowledge promotion strategy (including competence-based learning*)
South Korea	Various improvements under the 2008 VET Promotion Act (more work-based learning, curriculum changes, improvements to teacher preparation, quality assurance, guidance) Investment in Meister model schools Revision to qualifications framework
Switzerland	Improved matching of supply and demand on the work-based training market at Cantonal level (e.g. Action-last-minute, Win-Win 2012) Case management vocational education (from 2008) to improve integration of at-risk youth into IVET Campaigns targeting high-achieving young people to enter IVET Multiple initiatives to increase supply of training places (130 measures funded between 2004 and 2009 at national and Cantonal levels)

NB: \* indicates measure also listed in Maastricht study (Leney et al., 2004).

Source: Country fiches.

Many initiatives are used to raise IVET attractiveness but with few continuing from 2004. This could indicate that countries are moving on in their policy actions, perhaps partly as a result of different VET policy focuses in Europe <sup>(26)</sup>.

<sup>(26)</sup> Another explanation is that the information provided or the language used to describe a measure is too imprecise to trace over time.

## 6.2. Patterns and trends

Considering the full set of policies identified (Table B2 in Annex B) the most frequently mentioned (at least 15 of the countries in Table 5) are the following, listed in roughly descending order:

- (a) improve permeability and diversity of pathways and programmes;
- (b) campaigns to raise awareness;
- (c) improvements to guidance and counselling;
- (d) provide financial incentives;
- (e) improve quality of teachers or trainers;
- (f) skills competitions.

The most frequently mentioned of these as specific to increasing attractiveness are: improving permeability of pathways (11 of the 18 countries mentioning this initiative); campaigns to raise awareness (14 of 26 total mentions); and improvements to guidance and counselling (nine of 18 total mentions). The other three are frequently mentioned but fewer than half of countries see the measure as specific for increasing attractiveness.

Various policy measures are reported to increase the permeability of pathways in IVET. Poland, for instance, is modularising its VET system to enable students to move vertically or horizontally across pathways and to support greater transparency in its qualification system. A 2008 reform in Luxembourg improved horizontal and vertical permeability by creating 'learning areas' where pupils accumulate credits that are portable when they move to a different pathway. The Upper Secondary Schools Act (2008) in Iceland aided transitions between levels and between subjects, including VET and general education, through the introduction of a unified credit system.

Campaigns, frequently mentioned as a measure to increase attractiveness, take several forms. In Denmark this included the use of TV and other media to target companies, students and parents and a national database for citizens which includes an education guide detailing its qualification system and outlining the requirements for particular jobs or courses. Greece has created websites: one provides information on IVET, CVET and placement/employment information, and the other provides information on career prospects for those pursuing different education pathways. In England, the National Apprenticeship Service's 2012 campaign for national apprenticeship week features six current and former apprentices to show that apprenticeships can be advantageous to business and individuals. Campaigns in Finland are featured as a case study in Chapter 7.

Improvements to guidance and counselling aim to increase attractiveness in half of the countries that mention it (nine of 18 mentions). The recent rise in unemployment among young people in Iceland has multiplied demand for

counselling services in schools. The Ministry has responded by providing increased funding for guidance counsellors, with schools commonly acquiring extra staff specifically to help provide guidance to the unemployed who have returned to school to complete their qualifications. Career guidance in the Netherlands is embedded alongside the school curriculum, as an integral part of schools and training centres in general and upper secondary vocational education.

Almost half of the countries mentioned using financial incentives to promote attractiveness (nine of 19 country mentions). Financial incentives were directed to an entire programme, to employers or to students. England increased the overall budget for the apprenticeship programme (increases participation) and is offering a stipend to small businesses who recruit apprentices from February 2012 to March 2013. In the Czech Republic, some regional authorities provide scholarships in training fields that are normally in low demand, a strategy that has reportedly been successful. Companies in Iceland can receive grants if they only hire VET-qualified students who have completed their upper secondary education. It is hoped that this will also incentivise students to complete their upper secondary education studies.

Raising the quality of teachers or trainers is also important. In Austria, IVET trainer colleges (*Ausbilderakademien*) have been set up in the past six years to aim at structuring and promoting voluntary in-service training of apprenticeship trainers. In 2010, Hungary implemented a project whereby vocational teachers and trainers who have been teaching in VET schools for a longer period (around 10 years) have the chance to work for a business organisation or factory where they can get to know the most up-to-date technologies and methods used in their field.

Although over half of the countries are engaged in skills competitions (25 mentions), about a third specifically mention these as strategies to increase attractiveness. Finland provides one example, discussed further in Chapter 7. Many countries hold national competitions as part of the process for selecting competitors to represent them in international competitions, such as EuroSkills or WorldSkills. The national competitions can promote attractiveness in several ways: they highlight skills that can be developed in IVET; demonstrate the quality of IVET to young people, employers and the general public; and raise the interest of young people to pursue VET options.

A second major focus of initiatives (cited by 11 to 14 countries) included:

- (a) making structural changes to improve collaboration across levels;
- (b) improving the infrastructure of VET schools;
- (c) improving transition from VET to higher education;
- (d) revising, modernising the curriculum;
- (e) improvements to the apprenticeship system;

- (f) increasing the involvement of employers, the labour market and social partners;
- (g) improving access for specific groups;
- (h) reducing early school leaving.

The first two were specifically mentioned as measures to increase attractiveness in over half of the countries that cited each measure: structural changes (seven of 11 mentions) and improvements to infrastructure (seven of 12 mentions).

The finding that over one-third of countries are pursuing structural changes suggests that attention is also paid to integrating VET with other parts of the education system for purposes of alignment or efficiency. The vocational qualification prospects programme launched in Germany, in 2008 for a five-year period, integrates existing provision and structures within a regional context, aligns them better with actual demand for VET graduates, and so increases graduate employment prospects. To increase the uptake of apprenticeships in Lithuania and to make them more attractive to employers, management is being decentralised through reorganisation of VET schools into self-governing institutions, with stakeholders (enterprises, regional and municipal government representatives) taking a management role. A total of 13 VET providers had acquired autonomous status in 2010, with a further 16 planned by 2011.

Some of the 'infrastructure' initiatives appear extensive. Slovakia is establishing regional VET centres to promote excellence: five centres for excellence in VET have opened since 2009 in the Kosice Self-Governing Region, focusing on engineering, informatics, tourism, hotels, construction, metallurgy and crafts. England plans to open 24 university technical colleges (UTC) by 2014, which will offer 14 to 19 year-olds the opportunity to take a full time, technically-oriented course of study. Australia has made a significant financial investment in its trade training centres in schools programme to provide state-of-the-art facilities.

The measures least mentioned (by 10 or fewer countries in descending order) were aimed at: promoting work-based learning; introducing IVET at lower secondary or at an earlier age; adjusting VET offerings to labour market needs; creating VET programmes at a higher level; and increasing transnational mobility. Of this group, promoting work-based learning was seen as a specific measure to increase attractiveness by seven of the 10 countries mentioning it (Belgium, Germany, Italy, Romania, Spain, Switzerland and South Korea). About two-thirds of those mentioning measures to adjust VET to labour market needs identified this as a specific strategy for raising attractiveness (five of eight mentions).

Although less predominant than other measures, strategies to introduce IVET at lower school levels are seen as promising, in particular opportunities to 'try out'

vocational options. France and Germany provide two examples. Since 2004 France has incorporated orientation periods in lower secondary education to familiarise all students with occupational practice to stimulate them to choose a pathway in VET. In these discovery pathways (*itinéraires de découvertes*) pupils spend about 10% of their education in companies. In Germany an introduction to the working world is a compulsory component of all courses at general secondary school (*Hauptschule*) and intermediate school (*Realschule*). Instruction is provided either in a separate subject (prevocational studies, *Arbeitslehre*) or as part of the curriculum in other subjects. Work experience placements for pupils in the last two grades at lower secondary school level provide first-hand insight into the working world and guidance in choosing an occupation. The *Länder* also continuously develop activities, mainly held outside of school lessons, to help communicate a basic knowledge of the world of business and commerce.

#### **6.2.1. Comparisons with non-European countries and prior research**

Australia and South Korea serve as two ‘comparator’ (non-European) countries. South Korea has multiple initiatives related to IVET (in 16 of the 19 categories counted), and four of these are identified as specific to increasing attractiveness (promoting work-based learning; increasing transparency; improving guidance and counselling; and improving teachers). An interesting feature of the South Korean approach is its focus on post-secondary VET provision, at junior colleges and polytechnics. The tendency is for IVET graduates to pursue further study after secondary school, rather than enter the labour market, reflecting the high esteem for education attainment in the country. Employer engagement in VET is mainly ad hoc, and employers are more willing to engage with post-secondary institutions than with schools.

Australia is a federal State in which the states and territories also promote their own initiatives. It stands out from other countries in having a choice-based system where trainees, apprentices and employers can choose any eligible provider for off-the-job training or learning. The government then funds the selected public or private institution for that portion of the programme. Australia also has a quality assurance process for accrediting eligible providers. Several policy initiatives are identified at federal level: improving access for special groups (especially indigenous populations); adopting quality processes; providing financial incentives; improving the infrastructure of VET schools; improvements to the apprenticeship system; and adjusting VET programmes to meet labour market needs.

A comparison of the findings from this study with an earlier examination of policy measures to increase IVET attractiveness (Leney et al., 2004) suggests shifts in policy direction. In 2004, the most popular policies for increasing the

attractiveness of IVET were to create occupationally-oriented programmes in higher education to make higher education more easily accessible to students with a VET qualification. Other frequently mentioned policy measures were pedagogical reforms, permeability in routes and programmes, establishment of guidance and counselling systems, and launching information and promotion campaigns. In 2011, only six countries mentioned creating VET programmes at higher levels, two as specific measures to increase attractiveness (Belgium, Cyprus). However, most countries are still adopting measures to improve permeability and guidance and counselling and are engaged in information campaigns. The need to improve guidance and counselling is also borne out in the 2011 Eurobarometer survey: only half of EU citizens think that young people receive enough advice. Many countries in 2012 are adopting measures related to improving quality and transparency, sometimes in response to European-wide directives.

These shifts can indicate that earlier efforts have been successful and countries are moving on to address improvements to other aspects of IVET that might affect attractiveness. Or they might reflect changes in the broader context, for example to the economic situation or demands of the labour market. The prominence of policy measures that include financial incentives in 2012 may indicate that employers need more incentives to be involved in VET during times of financial crisis. The changes may also reflect different emphases in EU policy initiatives and recommendations, for example the current interest in frameworks to support quality and transparency.

### **6.2.2. Successful strategies**

Few of the country fiche provides specific information about 'successful' strategies. Table 6 lists some specific examples of measures that were noted as successful <sup>(27)</sup>. However, it should not be assumed that such strategies can be readily transferred to other countries, as success may be context-dependent. In addition, the designation of these strategies as 'successful' may or may not be backed up by research or evaluations: the study identified little evidence that policy initiatives are regularly evaluated to see their impact.

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<sup>(27)</sup> The country fiche on the Netherlands noted an initiative that was judged to be unsuccessful. A television series was created with the aim of increasing attractiveness by showcasing certain occupations. However, it was judged unsuccessful partly because it was difficult to send one coherent message to an audience with different interests and backgrounds. This result is consistent with the Eurobarometer data discussed in Chapter 5, which shows that TV is not an important source of information for young people making decisions about their educational path.

Table 6. Examples of measures cited as ‘successful’

Czech Republic	Regional authorities provide scholarships to students in fields that are normally low in demand, a measure that has been successful in raising participation in these fields.
Italy	An increase in the demand for IVET has been attributed to the use of active training methodologies, i.e. pedagogical approaches that include simulation, role play, group discussions or visits to enterprises. This is seen to be successful at responding to the special needs of young people with different styles of learning.
Ireland	The leaving certificate applied (LCA) programme, introduced in 1995, combines general education and vocational preparation and is aimed at learners who do not wish to progress directly to tertiary level education. The LCA is considered to have had some success in reducing the numbers of early leavers from education.
Austria	The five-year vocational colleges ( <i>BHS-berufsbildende höhere Schulen</i> ) provide a combination of in-depth general education and high-quality specialist vocational training, from which students graduate with a ‘double qualification’ that can lead to higher education or to the qualification for senior occupations (access to regulated professions). The BHS are considered key to the success of the Austrian school-based system.
Finland	Three measures mentioned as contributing to the attractiveness of VET are skills competitions, campaigns, and the introduction of a joint application system for upper secondary education in 2009. The last of these has been credited with increasing applications for IVET over general education for the first time.

Source: Original analysis from fiches collated for project. Multiple sources including interviews conducted.

### 6.3. Policy measures and indicators of attractiveness

An analysis was carried out to identify relationships between mentioned policy measures and indicators on attractiveness of IVET at country level. Chapter 4 presented an indicator of relative esteem using Eurobarometer data. Countries were divided into quartiles using this indicator and comparisons were made for countries in the highest and lowest quartiles. The countries designated as high esteem are Bulgaria, Greece, France, Hungary, the Netherlands, Austria and Finland (12% to 32% on the esteem indicator). Those designated low esteem are Denmark, Ireland, Lithuania, Malta, Romania and Sweden (-37% to -17% on the esteem indicator). Ireland and Lithuania stand out from this group in having stable participation even though relative esteem is low.

The following patterns emerge from this analysis. High esteem countries are more likely to cite policy measures aimed at improvements to guidance and counselling, campaigns to raise awareness of VET, skills competitions, and transnational mobility. Low esteem countries (as defined above) are more likely to cite different measures: reducing early leaving from education; introducing IVET at lower secondary or at a younger age; adjusting the IVET curriculum to meet changes in the labour market; initiating structural changes to improve collaboration across stakeholders; and providing financial incentives to participation.

There appears to be some logic to these results if the types of policy measure cited by the low esteem countries appear to deal with the fundamentals of IVET provision: attention is being paid to keeping young people in education and

training, improving the structural arrangements (perhaps to make IVET more coherent and efficient), ensuring that IVET provision is related to labour market needs and providing incentives for engagement in IVET. The 'high esteem' countries, on the other hand, perhaps have fewer concerns about participation and engagement or relevance of programmes to the labour market, so their attention is turned to other matters <sup>(28)</sup>. Another interpretation is that, in low esteem countries, VET may have a more social inclusion/remediation role; in high esteem countries a skills development function for VET may be dominant.

Patterns were identified in changes in relative esteem indicator from 2004 to 2011, again using Eurobarometer data reported in Chapter 4. The countries showing positive change in esteem (upper quartile, 19% to 41% change) are the Czech Republic, Cyprus, Latvia, Lithuania, Poland, Slovenia and Slovakia. Countries where relative esteem decreased are Denmark, Ireland, Spain, the Netherlands, Romania and the UK (lowest quartile from -41% to -17%). This analysis shows few clear differences. Countries in the highest quartile were slightly more likely to mention campaigns to provide information or raise awareness; those in the lowest quartile mentioned policy measures related to improving teachers/trainers and teaching.

Countries on both ends of the participation distribution were examined, comparing those with high participation (upper quartile 64% to 75.3%) and those with lowest participation (lowest quartile 12.8% to 37%). High participation countries are: Belgium, the Czech Republic, the Netherlands, Austria, Romania, Slovakia and Finland. Lowest participation countries in this analysis are Ireland, Italy, Cyprus, Lithuania, Hungary, Portugal and the UK. Four patterns stand out from this analysis. Countries in the lowest quartile are more likely to cite measures related to improving the infrastructure of VET schools. Countries in the highest participation quartile are more likely to mention initiatives to promote work-based learning and skills competitions and to increase the involvement of social partners in IVET.

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<sup>(28)</sup> These generalisations gloss over the inherent complexity of individual country situations, so caution is called for in interpreting these patterns. Countries without Eurobarometer data are not included in these analyses.

## CHAPTER 7.

## Case studies

## 7.1. Introduction

Country fiches were compiled for each country, with in-depth analysis conducted through case studies.

Based on the country-level data collection and examination of the Eurobarometer data, several possible focus countries, and specific cases within each, were identified for further investigation. Consideration of potential focus countries included examination of policy initiatives, aiming to highlight a range of initiatives that together represented the main policy actions identified in the study and prior literature for raising the attractiveness of IVET. Other considerations were geographic spread, likelihood of data availability, and expertise/country-level knowledge within the study team.

Table 7 shows the six selected countries with relevant data and case study initiatives, which were agreed with Cedefop. All have fairly positive images of VET overall and, apart from Spain, meet or exceed the Eurobarometer EU average of 71% thinking that VET has a positive image. The table also shows that countries selected cover a good spread in relation to some quantitative indicators used in the previous chapters (high/low relative esteem, stable/changing relative esteem, high/low participation rate).

The German case study reports on two measures to raise attractiveness in two target groups. The educational chains (*Bildungsketten*) initiative aims to reduce the number of young people leaving secondary education without a leaving certificate. *AusbildungPlus* (TrainingPlus) concerns the dual study programmes that link VET and higher education, as a means to attract high achievers.

The Finnish IVET system is seen as attractive and established, though, unlike Germany's dual system, it is mainly school-based. The case studies focus on two sets of initiatives: skills competitions and campaigns to raise awareness organised by the Ministry of Education and Culture and the social partners.

The Ireland study examines the national framework of qualifications (NFQ), one of the longest established in the EU. It also examines the national skills strategy and its role in the Irish VET system responsiveness to economic change. IVET in Ireland was built up from a low base very quickly to meet the demands of a fast-growing economy. The economic downturn has affected IVET, which must adjust rapidly to respond effectively to present and anticipated changes in society and the economy.

In the Czech Republic, the first case investigates the Craft is Alive! (*Remeslo Zije!*) campaign in Prague, which aims to raise the prestige of skilled manual work, crafts, and vocational training. The second focuses on initiatives to promote and support the involvement of social partners in IVET provision, with particular emphasis on incentives for employers. Both initiatives are related to an action plan adopted in 2008 to support VET and increase participation.

The Danish case investigates the Quality patrol (*Kvalitetspatruljen*) initiative, which emphasises quality assurance. This initiative has been put in place in VET schools through 2010-12 to promote sharing of knowledge and best practice.

The case study in Spain examines the initial professional qualifications programmes (PCPI), which focuses on young people who have not completed compulsory secondary education and are therefore at risk of unemployment and social exclusion. This is especially important in Spain where unemployment is very high and chances of getting a good job increase with level of qualification.

The following sections report on each country case in turn, each section being organised around several topic areas. First, the introduction outlines the case study initiatives to be discussed and how they are related to increasing IVET attractiveness. Next, the wider country context is described, to include information on the perceived attractiveness of IVET and exogenous drivers of VET attractiveness (demographic trends, economic conditions, migration, labour market), and other endogenous contextual factors (type of IVET provision, other policies) that help situate the specific initiatives discussed.

Each case study initiative is then presented, beginning with an overall description of the initiative and its implementation (level of implementation, groups targeted). The discussion then turns to the behavioural elements targeted: how is the initiative expected to change the behaviour of the target groups or to work in a way that supports IVET attractiveness? What is the intervention logic and what outcomes are expected? Next, the effect of the initiative is discussed, with special attention paid to evidence from evaluations or other qualitative or quantitative indicators of effectiveness. Finally, an overall summary assessment of the wider outcomes is presented. This analysis aims to establish some of the characteristics of successful policy programmes or initiatives in their specific contexts.

A final section in this chapter summarises the main findings.

Table 7. Country cases and example initiatives

	Germany	Finland	Ireland	Czech Republic	Denmark	Spain
General perception of VET image Eurobarometer 2011 (Average 71%)	84%	90%	76%	71%	74%	69%
% recommending VET to young person Eurobarometer (2004/11)(2011 average 32%)	26%/26%	49%/43%	29%/10%	18%/41%	14%/43%	44%/39%
Participation rate <sup>(a)</sup>	55.2%	71.5%	31.4%	71.5%	46.5%	44.6%
Case 1	Educational chains	Skills competitions	NFQ	Craft is alive! campaign	Quality patrol	PCPI
Case 2	TrainingPlus project	Information campaigns	National skills strategy	Engagement of social partners		
Changed in attractiveness <sup>(b)</sup>	No	No	Yes, less attractive	Yes, more attractive	Yes, less attractive	Yes, less attractive

NB: <sup>(a)</sup> Participation rates in IVET (3-4) vocational programmes as % of all at ISCED 3 and ISCED 4 (18-64 year-olds) (2010; EU-27 average 51/3%);

<sup>(b)</sup> Comparison of relative esteem indicator in 2004 and 2011.

Source: RAND Europe and SKOPE.

## 7.2. Germany

### 7.2.1. Introduction

The availability of places in the dual system of training dominated the discourse on attractiveness of IVET in Germany for most of the 2000s. Significant efforts and investment went into ensuring that employers provide sufficient training places to meet the consistently high demand in the dual system. It is this high demand for contracts with training companies that are an important indicator for the attractiveness of this sector of the IVET provision in Germany.

Several initiatives, programmes and campaigns have maintained and improved IVET status in Germany in recent years. Because of the importance of the dual system, many of these activities have focused on raising IVET attractiveness among employers, aiming at increasing the number of dual system training contracts between employers and trainees. The national pact for initial training and skilled labour development, which was initiated in 2004 and was continued in 2010 for a further four years, is the most important initiative in this context (Nationaler Pakt, 2010). The pact is supported by the Federal Government, employer associations and the Standing Conference of Ministers of Education of the Federal States. The pact includes several specific measures aimed at particular target groups, for instance young migrants, disadvantaged students and young people who have hitherto been unsuccessful in finding a place in the dual system.

Two main target groups for measures to improve attractiveness in the German context can be identified: young people who have difficulties in gaining a place in dual system training; and high achievers who decide between IVET and a route that leads to higher education. This section of the report presents one case study each on these two groups.

The case study for the first target group explores the educational chains (*Bildungsketten*) initiative which aims at reducing the number of young people leaving general secondary education without a leaving certificate. This group has little chance of gaining a place in the dual system or attractive school-based training. The case study investigates to what extent educational chains can improve the preparation of this target group for IVET.

For the second target group, the TrainingPlus (*AusbildungPlus*) project coordinates the provision of many additional qualifications (mainly aimed at making dual system programmes more attractive) and so-called dual study programmes which combine higher education studies with vocational qualifications, or parts of vocational qualifications, in various ways. The case study focuses on dual study programmes and documents how they have established a

new and attractive sector of educational provision that links vocational and higher education.

## 7.2.2. Context

### 7.2.2.1. *VET attractiveness*

IVET has a high societal status in Germany. It is frequently mentioned as an important factor for Germany's economic success, and consistently high participation in IVET has ensured that youth unemployment has remained low throughout the 2000s compared with most other European countries (BMBF, 2012). In 2010 the unemployment rate of 15 to 24 year-olds in Germany was 9.9%, less than half of the EU average rate. The same was the case for youth unemployment of those with qualifications at ISCED 3-4 (Germany: 7.4%, EU average: 16.2%) (Cedefop ReferNet Germany, 2011, p. 9). At ISCED 3, more students in Germany choose the vocational pathways (57.5%) than general pathways in secondary education (42.5%) (Cedefop ReferNet Germany, 2011, p. 48).

Eurobarometer data (European Commission, 2011a) provide a somewhat contradictory picture of how VET is regarded in Germany: while 84% of participants in the survey say that VET in Germany has a positive image (compared with 71% on EU average), only 26% of them would recommend VET to a young person finishing compulsory education (32% EU average). This is in clear contrast to the relatively high participation in IVET programmes and also in contrast to the high demand for training places, particularly in the dual system.

### 7.2.2.2. *Economic context*

The German economy recovered quickly after a sharp recession in 2009, reaching growth of 3% in 2011. This has been fuelled by a strong export sector but also by substantial investment in infrastructure projects. Due to uncertainties caused by the Euro crisis, growth in the first quarter of 2012 has slowed down to 1.7% (BMW, 2012a). However, the labour market is regarded by the Federal Ministry of Economics and Technology as an 'anchor of stability' (BMW, 2012b), with high employment and increasing salaries feeding into high levels of demand and strong internal economic activity. Unemployment rates are at historically low levels, falling to 6.6% in June 2012. However, there are first signs that the slowing down in overall growth will mean that unemployment figures are unlikely to fall further (Bundesagentur für Arbeit, 2012).

The training market has clearly benefitted from the positive economic development; the last available figures (June 2012) indicate a further increase in the number of training contracts in the dual system (Bundesagentur für Arbeit,

2012). For 2011, the supply of dual system training places increased by 3.5% resulting in an increase in training contracts of 1.8% compared with 2010. With the demographic decline of the youth cohort (see below) this means that there are more training places on offer than people looking for a place (BMBF, 2012, pp. 11-12).

7.2.2.3. *Demographic decline of youth cohorts and changes in educational preferences*

The demographic changes in Germany in recent years have resulted in a substantial reduction in the number of young people looking for a place in IVET. For the dual system this means that the supply of places has outstripped demand since 2008. According to the relevant predictions this will remain the case for the foreseeable future (BMBF, 2012; Autorengruppe, 2012, p. 154). This has resulted in sectoral and regional skills shortages which, in turn, raised the stakes in questioning IVET attractiveness in Germany.

The shrinking of the age cohort of 16 to 20 year-olds, and the fact that more young people gain a place in the dual system, has meant the number of people in the so-called 'transition system' has decreased. 'Transition system' refers to a complex range of programmes and courses, mainly offering vocational orientation and parts of VET qualifications in predominantly school-based settings. According to official figures, the numbers of students in the transition system has reached its lowest level (under 300 000) since data collection began, down from over 410 000 in 2005 (BMBF, 2012, p. 34).

Another factor that contributes to the imperative of improving IVET attractiveness in Germany is the continuing trend towards higher education. While the number of young people opting for studying in higher education has risen significantly since 2005, enrolment in all forms of IVET has remained flat and numbers in the transition system have been declining (BMBF, 2012, p. 49). In this context, measures taken in the past to improve the permeability between vocational and higher education are seen as important in raising perceptions of IVET attractiveness. An alternative view is that of increasing competition between higher education and IVET, particularly dual system training (Autorengruppe Bildungsberichterstattung, 2012, p. 121).

### 7.2.3. Case 1: educational chains

#### 7.2.3.1. Description

The initiative ‘Completion and connection – educational chains to training completion’ <sup>(29)</sup> started in 2009 and is part of the national pact for initial training and skilled labour development in Germany. The initiative brings together new instruments to support the transition of learners between educational sectors and connects them with existing activities at Federal and *Länder* level. It aims to provide comprehensive support for up to 30 000 young people who are in danger of leaving education and training without a vocational qualification (Nationaler Pakt, 2010, p. 5).

The starting point of the initiative is the fact that too many young people complete compulsory schooling without attaining a school leaving certificate. This group accounted for 6.5% of school leavers in 2010 and has little prospect of finding a place in dual system training or attractive types of school-based initial training: in 2010 only 4.6% of trainees in the dual system had no school leaving certificate, while the share of this group of young people in the less attractive programmes of the transition system was 20.6% (Autorengruppe Bildungsberichterstattung, 2012, pp. 95 and 103). Young people without a school leaving certificate who begin training in the dual system are much more likely to drop out: German IVET statistics show that 19.4% of training contracts with this group of young people are cancelled within the first 12 months. The corresponding figure for trainees who have a medium-level school certificate is 10.9%; for trainees with A-level equivalent school qualifications it is 8.3% (Autorengruppe Bildungsberichterstattung, 2012, p. 116; cf. BMBF, 2012, p. 44).

With increasing concerns about a shortage of skilled labour, this situation calls for change. In her announcement of the educational chains initiative, the Federal Minister for Education, Annette Schavan, argued: ‘we cannot afford to leave behind a single young person without initial vocational training.’ <sup>(30)</sup>

To ensure that the talents of all young people are developed and used, educational chains aims to develop the skills and knowledge required for starting an IVET programme. The initiative starts to provide targeted support for young people at risk from the last years of compulsory schooling in developing the necessary basis for vocational training and thus finding an appropriate training place. This is encapsulated in the concept of ‘vocational training maturity’ (*Ausbildungsreife*), which the German Federal Government and the governments

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<sup>(29)</sup> *Abschluss und Anschluss – Bildungsketten bis Ausbildungsabschluss.*

<sup>(30)</sup> See <http://www.bildungsketten.de/de/235.php> [accessed 14.8.2013].

of the Federal *Länder* aim to improve in collaboration with the social partners. In a joint decision in 2008, they committed to halving the share of young people considered unprepared for starting an initial training programme from 17 to 8.5% of the youth cohort (Schuck, 2011, p. 1). Educational chains are a major tool for reaching this aim.

The initiative consists of three interlinked instruments: analysis of potential, career entry support, and vocational orientation (Figure 6-1).

Figure 69. **Instruments of the educational chains initiative**



Source: BMBF/Jobstarter programme.

As part of educational chains, a standardised catalogue of criteria was used to select over 1 000 schools offering general education at secondary level 1 (lower secondary education) and special schools for young people with learning difficulties and/or disabilities. Analysis of potential of all pupils is conducted at selected schools, depending on school type and Federal State, in year 7 or 8 (pupils are usually aged 13 or 14). The aim is to identify areas of strength and potential for each pupil and areas where help is required to develop the pupil's full potential. The result of the analysis is the starting point for targeted support for young people, laid down in individualised support plans, agreed with young people and their parents. These plans are then used to direct school-based and extra-school support measures (cf. Lippegau-Grünau and Stolz, 2010; Weissmann, 2010). The Federal Ministry of Education and Research expects to fund 60 000 such analyses every year (Thiele, 2011, p. 2).

Vocational orientation becomes part of the school programme for pupils from selected schools from year 8 onwards. Orientation phases are managed by

intercompany training institutions such as those organised by the chambers. As these training institutions often play an important role in dual system training, they are expected to provide close links to work-based training in trade and industry. The main aim of the orientation phases is for young people to follow up their interests, gather specific experience in three occupational sectors, and establish links between what they learn at school and how their knowledge and skills can be applied in work-related contexts. This usually improves the educational attainment of pupils back at school and also decreases the likelihood of drop out from IVET programmes (Schuck, 2011, p. 2). The results of this process are documented in a 'career choice passport' or similar documents that can be used for applying for IVET programmes. The funding provided by the Federal Ministry of Education and Research covers a number of two-week orientation phases in groups of not more than 15 young people (BMBF, 2010).

Career entry support is provided to pupils whose analysis of potential has identified a significant need for additional help at school and in preparing for IVET. This support is provided by experienced educational guides and is based on the individual support plan from the analysis of potential: usually schools work with external providers. The support and advice that educational guides provide is meant to be continuous, from the last years of compulsory schooling to entering the IVET system (preferably in the dual system), and to completing the first year of a training course. If required, the support can be extended to the completion of the training course. In 2010, 500 educational guides started their work, with funding made available to cover 1 000 guides overall (Thiele, 2011, p. 2). The tasks of the guides include coaching the pupils in their preparation for school exams and helping them to make the transition from school to vocational training. In cases where parents or carers cannot provide young people with sufficient support, it is necessary for educational guides to take on a mentoring role, supporting and monitoring the educational development of their pupils and cooperating closely with regional educational and support provision. From November 2010, these full-time, fully-funded educational guides, who are based at participating schools, have been joined by around 1 000 volunteer guides drawn from the regional pool of retired professionals. These senior experts can contribute their occupational experience to the development of the young people, ensuring that trainees complete their course of training. This support is coordinated by the educational guides <sup>(31)</sup>.

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<sup>(31)</sup> The work of senior experts in educational chains is part of the initiative Prevention of training drop out (*Verhinderung des Ausbildungsabbruchs – VerA*), organised by the collaboration of several employer associations and the Federal Ministry of Education and Research (Schuck, 2011).

#### 7.2.3.2. *Level of implementation*

Data on the first 15 months of career entry support show that the initiative had recruited just under 26 000 participants by the end of May 2010 <sup>(32)</sup>. The aim of selecting and collaborating with 1 000 schools was reached in 2011; as of July 2012, 1 050 schools across Germany are actively collaborating with around 170 external providers in delivering the Initiative <sup>(33)</sup>. The bulk of the funding for the initiative comes from the Federal Ministry of Education and Research which has budgeted EUR 460 million until 2014.

#### 7.2.3.3. *Target group*

The targets are mostly 8th or 9th graders in regular schools of the lower secondary level or in special schools for young people with learning difficulties and/or disabilities, who are in danger of failing to attain a school leaving certificate because of weaknesses in core subjects and/or language competence, or because of family or social problems <sup>(34)</sup>. According to the relevant data on educational achievement and VET statistics (see above) this group of young people has a high likelihood of not gaining a place in regular IVET or finishing their dual system programme. Young migrants <sup>(35)</sup> are more likely to leave compulsory schooling without a completion certificate and are therefore a particular target group of educational chains.

Participation data for the first 15 months of career entry support show a majority of male participants (57.9%), in line with overall male participation in the targeted school types. About half of participants are migrants, a strong overrepresentation of this group; this overrepresentation aligns with the aims of the initiative (Straif, 2011, p. 70).

Schools targeted by the educational chains initiative are, as priority, those with high dropout rates and a high proportion of pupils who are in danger of not

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<sup>(32)</sup> Career entry support, as an instrument of educational chains, built on an earlier measure initiated by the Ministry of Education and Research and the Federal Employment Agency from 2008 onwards. Because of this, there are more experiences with this instrument than with the others, and therefore most of the data used for assessing the effectiveness of the initiative are drawn from career entry support.

<sup>(33)</sup> For a map of locations see <http://www.bildungsketten.de/de/karte.php> [accessed 14.8.2013].

<sup>(34)</sup> For an overview of criteria used for selecting participants for career entry support and their relative importance see Forschungskonsortium (2010, 41).

<sup>(35)</sup> Migration background in the German context is defined as (a) people who have immigrated to Germany after 1949, (b) all people born in Germany with foreign nationality, and (c) all people born in Germany who have at least one parent falling into categories (a) or (b). According to the demographic statistics, 15.5 million people in Germany have a migration background, which is 19% of the overall population.

achieving a school leaving certificate <sup>(36)</sup>. Schools that already have support measures for this target group of pupils in place and with similar aims and a similar reach are not targeted. Schools also need to ensure that they can provide the conditions for an educational guide to work with targeted pupils (Schuck, 2011).

#### 7.2.3.4. *Behavioural elements targeted*

The initiative intends to increase IVET attractiveness for young people at the lower end of the educational attainment spectrum, some of whom might not even consider applying for an IVET programme because they might regard their chances of getting a place as too remote. In line with its overall aim of improving the preparedness of low-attaining pupils for the demands of IVET programmes, the initiative focuses on improving the achievement of participants in core secondary school subjects, developing relevant knowledge and skills, increasing their self-esteem, and identifying occupational areas that appeal to those participating.

For schools to be selected for the initiative they have to demonstrate that they are able and willing to take an active role in the preparation of participating pupils for IVET. This entails them working closely with the external providers of career entry support and newly established educational guides based at the school (Schuck, 2011). Supporting young people with difficulties in meeting the requirements for, and in finding, IVET places has become more directly part of school responsibility than hitherto.

The initiative also attempts to involve the employment sector: companies and inter-company training organisations providing placement opportunities for participants. Successful participation in the Initiative signals to potential training companies or other providers of IVET that the participant has worked on his or her preparation for training, has engaged with professionals in this area, and demonstrates an important transition step has taken place from school to IVET. There is anecdotal evidence from various forms of feedback on the initiative that the combination of a successful placement with the completion of the educational chains programme significantly increases the chances of gaining a dual system training place with the placement company (Initiative Bildungsketten, 2012).

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<sup>(36)</sup> In addition to criteria connected with the aims of the initiative, school selection was also guided by the consideration of equal representation across the 19 Federal States (see <http://www.gwk-bonn.de/fileadmin/Papers/koenigsteiner-schluessel-2010.pdf>).

#### 7.2.3.5. *Tools/policy instruments*

Since one of the aims of educational chains is to bring together and streamline existing measures and programmes at Federal, *Länder*, regional and local levels, with some new instruments for providing targeted support for young low achievers, a complex mix of responsibilities, funding streams and actors are involved. The Federal Ministry of Education and Research has assumed overall coordination but relies heavily on the Federal Institute for Vocational Education and Training (BIBB) for guiding the vocational orientation instrument and on the Federal Employment Agency (Bundesagentur für Arbeit) for coordinating the career entry support instrument. The level of complexity is reflected in the work of a coordinating working group, bringing together the relevant stakeholders at various levels (Resort-AG Übergang Schule-Beruf, 2011). The funding provided for the three instruments of the initiative is mostly awarded on the basis of competitive tender, guided by invitations to tender issued by the relevant federal ministries (for instance, BMBF, 2010; Bundesagentur für Arbeit, 2010). The funding acts as an inducement to social actors who are interested in getting involved. The initiative also builds on various existing activities with similar aims and acts as a focus for these activities. Participation in the initiative is entirely voluntary for schools, providers and social partners.

#### 7.2.3.6. *Evidence for effectiveness*

In 2010, the evaluation of career entry support commissioned by the Federal Government published its preliminary report (Forschungskonsortium, 2010). The evaluation draws on several surveys, consisting of both written questionnaires and telephone interviews. The surveys covered just under 2 000 pupils involved in career entry support, over 1 000 non-participating pupils, 250 school principals, 500 teachers at 170 participating schools, 180 providers and 280 educational guides. The survey data was combined with administrative data held by the Federal Employment Agency (Forschungskonsortium, 2010, p. 9-10).

The evaluation concludes that most participants assess their experience of career entry support as positive, including productive collaboration with their educational guides. In some cases this collaboration did not start off positively and the young people had to get used to the additional demands on their time made by their participation in the programme. Generally positive experiences and the perception of making progress towards a successful start in IVET convinced most participants that the additional tasks are worth the effort. Over 91% of surveyed participants report that career entry support has increased their chance of getting a place in the dual system, and nearly 80% report that their chances of completing compulsory school successfully have increased (Forschungskonsortium, 2010, p. 84). However, the statistics show a dropout rate of 13.7% in the first 15 months

of its duration. The most important reason for dropout is participant lack of motivation, plus attitude and behaviour issues (Forschungskonsortium, 2010, pp. 46 and 50).

The educational guides also provided generally positive feedback. They particularly value the high degree of openness of career entry support which allows them to work with young people in a targeted and individualised way. They remark negatively on an unclear and complex division of responsibilities in the administration of the initiative and report on their need to develop more skills and expertise through seminars, workshops and other relevant further training measures. They see their salaries as too low, which is demotivating and increases the risk of staff fluctuation. The educational guides were also asked about their perception of the acceptance of career entry support by other stakeholders. According to these data, career entry support is well accepted by two-thirds of local employers and by over 85% of companies that provide placement opportunities for pupils (Forschungskonsortium, 2010, p. 88).

The views of school principals and school teachers of the general aims and approaches of career entry support are also mainly positive. However, one out of six teachers considers implementation as problematic.

The preliminary report does not make claims on the impact of career entry support because, at the time of publication, the project had only run for 15 months. However, 70% of teachers involved in the work with career entry support indicated that the participating pupils' preferences regarding their future occupation have become more realistic. Over half of the teachers (58%) stated that the chances of pupils getting a place in dual system training have increased by participating in career entry support. However, they are less optimistic about a positive impact on school attainment of participants (Forschungskonsortium, 2010, p. 85).

A separate study on career entry support in 2011 concluded that '[...] the introduction of the instrument was met with approval by the main stakeholders, i.e. schools, the transition system and various actors working with disadvantaged young people' (Straif, 2011, p. 67). However, the study also identifies some problems in the implementation, mainly caused by the speed of introduction. For instance, it proved difficult to recruit a sufficient number of appropriately qualified educational guides. This and other factors meant that some of the positions were filled with part-time staff, sometimes on short-term contracts. The fluctuation rate of people working as educational guides in career entry support in the first year was 33% (Forschungskonsortium, 2010, 33), which runs counter to the idea of the initiative providing stable and continuous support for young people.

Another study found that '[...] sometimes it proved to be a laborious process to explain to schools the functions of career entry support and the opportunities it opens up' (Kooperationsverbund, 2010b). In particular it seemed to be difficult to

clarify the relationship between existing measures to support young people with learning difficulties and the new initiative. In some instances ‘... problems in the cooperation with schools resulted from diverging views of the tasks of educational guides’ (Kooperationsverbund, 2010a). Other ‘teething problems’ with career entry support included unclear criteria for selecting participating schools and the fact that schools were not involved in the selection (Straif, 2011, p. 68).

There are also several more systemic problems. For instance, in some geographic areas the centrally administered part of career entry support met an existing, and in many cases well established, network of organisations involved in supporting groups of young people that overlap with the target group of the educational chains initiative. Also, the availability of senior experts varies greatly in different local contexts; it is unclear whose responsibility it is to develop networks of senior experts locally and regionally. The qualification and mentoring of these volunteers is often not ensured (Straif, 2011, pp. 67-68).

The study by Straif (2011) provides case studies in which career entry support has made positive contributions to how young people who are in danger of not gaining access to an IVET programme are systematically supported in the process of making the transfer from school to training. Most of the positive examples make efficient use of existing local structures and networks. In some cases there are formal contracts between the main actors responsible for delivering the new instrument locally and regionally.

The trade unions welcomed the initiative at its inception but have taken a more critical stance in the meantime. They argue that the initiative does not go far enough and there seems to be more support for alternative concepts aimed at supporting the transition of lower-achieving young people into apprenticeship training (DGB, 2010). One such alternative is the introduction of youth occupation agencies (*Jugendberufsagenturen*), seen in the federal state of Hamburg. These agencies provide coordinated support for young people across all relevant institutions up to age 25 (Hamburgische Bürgerschaft, 2012).

#### 7.2.3.7. *Wider outcomes*

The educational chains initiative is one measure aiming to improve the integrative potential of IVET in Germany. With favourable conditions in the economy and the labour market, the integration of groups of young people who have found it difficult to get a foothold on the career ladder becomes a priority. For the initiative, integration of low-achieving pupils and young people with migration backgrounds in IVET is particularly important: integration of its target population into the dual system of training is the priority. Given the requirement in Germany for everybody to stay in some form of education and training until age 18, this means reducing the high proportion of young people with low educational achievements and/or

migration backgrounds who have traditionally ended up in the transition system. In cases where transfer into the transition system cannot be avoided, the support offered by the educational chains initiative ensures that participants select the most appropriate school-based programme in the system and that the programme leads to dual system training as soon as possible. In this sense, the initiative reinforces the preference of employers and all other important stakeholders for work-based over school-based IVET provision.

The educational chains initiative seems to work because it is supported by the main stakeholders (schools, employers) who all contribute resources to it. Trade unions are not systematically involved. Educational chains can be traced back to ideas and approaches developed in smaller projects and programmes, responding to the lessons learned from previous experience with similar tools. Another contributing factor is that the initiative comes at a time when the danger of skills shortages has been identified as a threat to future economic development. This has certainly helped to secure employer involvement and continued support, particularly for the crafts sector where not all dual system training places can be filled.

It remains to be seen whether educational chains can iron out some of the early problems in its implementation and whether it goes far enough in providing effective support for its target group. There is still a question of sustainability, as some of the federal States have not committed the funding necessary for the continuation of the initiative in the medium and long term.

#### **7.2.4. Case 2: TrainingPlus (*AusbildungPlus*) project**

##### *7.2.4.1. Description*

There is growing concern among employers in Germany about potential shortages of highly-skilled labour due to the shrinking youth cohort and the increasing preference of young people for continuing their studies beyond secondary school in higher education rather than in VET. The higher education participation rate increased from 30.2% in 2000 to 42.4% in 2010 (Statistisches Bundesamt, 2012, p. 15); for commentators on the VET system in Germany, this is evidence of growing competition between VET and the higher education sector for talent (BMBF, 2012, p. 6).

The TrainingPlus project was initiated to improve the attractiveness of IVET for high-achieving young people. The project's two main strategies are provision of additional qualifications which can be achieved during regular training in the dual system, and dual study programmes which combine higher education studies with vocational qualifications or work placements. The project coordinates these two strands and provides an overview of opportunities for interested students,

employers and higher education institutions. Using the TrainingPlus project as a starting point, this case study focuses on dual study programmes, detailing how they have established a new and attractive sector of educational provision that links vocational and higher education.

In a separate development, several recent initiatives aim at making the transition of VET graduates to higher education easier. In 2009 the Standing Conference of Education Ministers for the German *Länder* decided that successful graduates from IVET programmes should be entitled to study in higher education on completing an assessment of ability to study. By allowing IVET graduates to continue their learning in higher education it is hoped that IVET will become more attractive to high-achieving cohorts. This offers a consecutive pathway from vocational to higher education, contrasting with dual study programmes that establish a parallel structure in which vocational and higher education are combined.

A substantial proportion of people with university, or *Fachhochschule* qualification, have traditionally entered IVET. For instance, the proportion of people with this level of qualification entering the dual system rose from 15.7% to 20.2% between 2000 and 2010. The corresponding figures for school-based training programmes that lead to a full VET qualification are 18.6% and 20.7%. This trend is in line with a growing share of the age cohort completing general schools with university or *Fachhochschule* qualification which rose from 43% in 2006 to 49.1% in 2010 (Autorengruppe Bildungsberichterstattung, 2012, pp. 95 and 103).

The TrainingPlus project provides comprehensive information to increase the visibility of opportunities IVET offers highly qualified school leavers. At the heart of the project is a databank containing an overview of additional qualifications for dual system training programmes and dual study programmes nationwide. As of 30 April 2011, the databank listed and outlined 2 227 additional qualifications and 929 dual study programmes (AusbildungPlus, 2011, pp. 6, 20), all electronically searchable according to region, sector, key words and combinations thereof<sup>(37)</sup>.

Dual study programmes have been in place since the 1970s but only in the past decade have they developed into a significant educational option at the boundary between vocational and higher education. Their growing importance is connected to the introduction of bachelor degrees in Germany in the aftermath of the Bologna Declaration of 1999. Bologna-style bachelor degrees aim to be more practically relevant than traditional German degrees and to provide students with

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<sup>(37)</sup> See <http://www.ausbildungplus.de/webapp/suche?typ=zq&neuesuche=true> [accessed 19.8.2013].

high levels of employability. To reach these aims, some higher education institutions started to combine (elements of) IVET into their study programmes; this represents the basic rationale of dual study programmes.

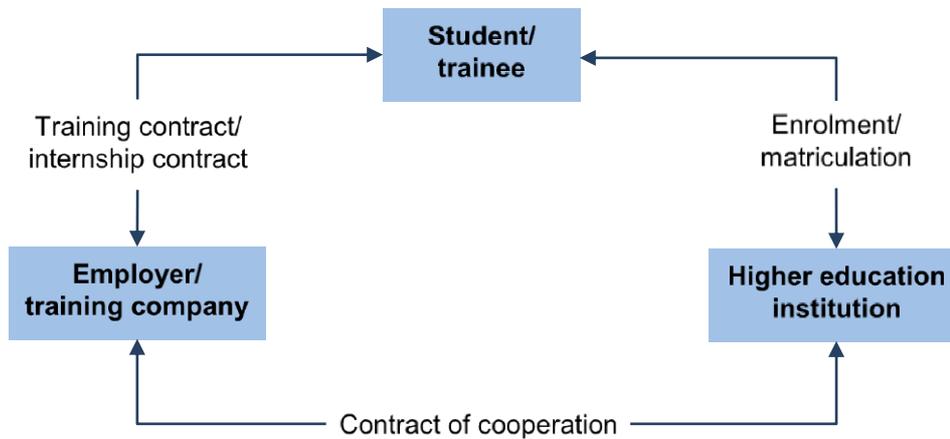
Several models combine IVET and higher education programmes (AusbildungPlus, 2012a). The most important distinction is that between programmes integrating an entire IVET qualification and those that include phases of practical work during higher education studies. Both types of programme are more closely bound to the world of work than traditional higher education degrees. The TrainingPlus project defines the amount of company-based training required for a programme to be classified as a dual study programme as at least 12 months over the course of the programme: this is significantly longer than for placements currently part of some traditional degree programmes. A further characteristic of dual study programmes is the close collaboration of two learning venues, a higher education institution and a training company, resulting in systematic combination of theoretical and practical learning. The aim is organisational and curricular dovetailing of higher education study and work-based learning (AusbildungPlus, 2011, p. 20).

For all types of dual study programmes a higher education institution and an employer have a contract of cooperation which specifies the roles and responsibilities of the two partners in the programme. The contracts also regulate admission criteria and determine the organisational and thematic integration of study and placement phases (Weich, 2011, p. 75). They specify whether companies pay the higher education institution tuition fees or not<sup>(38)</sup>. Students are enrolled at the higher education institution and have a training contract with the company; the study programmes have a dual contractual structure, with the learner spending time as a higher education student and company-based trainee.

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<sup>(38)</sup> Only low tuition fees currently apply in most the 16 Federal States of Germany.

Figure 70. Relationships between partners in dual study programmes



Source: StudisOnline (2012).

In cases in which a full dual system training qualification is integrated into the study programme, graduates attain a higher education qualification (in over 90% of cases a bachelor degree) and a full vocational qualification in a state-recognised training occupation. This results in programmes that typically include about 30 months of higher-education-based study and 24 months of company-based training (Hochschule dual, 2007, p. 5). In such programmes the school-based part of the dual system training is provided by either the higher education institution or a vocational school (or a combination of the two). In all cases the student is enrolled at the higher education institution and has a training contract with the training company along the lines of contracts issued for dual system training programmes. Students are paid a training salary by the training company, at least in line with dual system training regulations for company-based phases.

For dual system training programmes that include phases of practical work, placement phases at companies are either full-time (specific days of the week or longer blocks) or part time (allowing higher education studies to continue at the same time). Students spend at least 24 months on higher education studies and at least 12 months on work-based training (Hochschule dual, 2007, p. 5). Placements are linked thematically to what is learned at the higher education institution. Students are enrolled at the higher education institution and have either a work or an internship contract with the training company. In most cases, students receive a modest salary from the company during placement.

#### 7.2.4.2. *Level of implementation*

The TrainingPlus project publishes annual reports on the supply and take-up of additional qualifications and dual study programmes. This allows identification of trends and analysis of implementation level.

The reports document substantive increases on the supply side in recent years for dual study programmes. Programme growth rates were 12.5% in 2010 and 20% in 2011, reaching 929 at the date of the last available report (30 April 2011), 434 of which contained a full dual system IVET qualification. Most dual study programmes (545) are offered by *Fachhochschulen*, with universities only offering 28 programmes in 2011. The remaining programmes are offered by other types of higher education institution. The most important institutional type among these is the vocational academies (*Berufsakademien*), which are particularly strong in the federal State of Baden-Württemberg. This explains the uneven distribution of dual study programmes across the 16 federal States (AusbildungPlus, 2011, p. 32). The most frequent subject area for dual study programmes is business studies (378 programmes) followed by mechanical engineering (142) and IT (133).

The number of students enrolled in dual study programmes reached over 61 000 in 2011, an increase of 21% compared with April 2010. Most students study at a *Fachhochschule* or a *Berufsakademie* and only 656 students at a university. Employers are part of 40 000 collaborations with the different higher education institutions on dual study programmes, an increase of 46.5% <sup>(39)</sup>. This overall growth rate for employer engagement was driven by a jump in business studies (73.8%). Employer involvement also varies regionally (AusbildungPlus, 2011).

#### 7.2.4.3. *Target group*

The TrainingPlus project mainly targets young people who leave compulsory schooling with a higher education entrance qualification, qualifying either for study at a university (general higher education maturity, *Hochschulreife*) or at a *Fachhochschule* (*Fachhochschulreife*). Although some study programmes can be entered without this level of qualification, they are currently not part of the project (AusbildungPlus, 2012a) <sup>(40)</sup>.

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<sup>(39)</sup> This is not necessarily the same as 40 000 employers collaborating as these data are collected from the higher education institutions who are asked how many company collaborations they have. Therefore, an employer who collaborates with more than one higher education institution will be counted more than once.

<sup>(40)</sup> These types of programme offer students with an IVET qualification the opportunity to gain a higher education entrance qualification. Most study programmes are part-time, allowing students to continue their jobs, and as distance-learning.

Companies are a second target group. They subscribe to the project by registering the opportunities they offer trainees to take up an IVET programme (usually in the dual system) with an additional qualification, or the places they offer students following a dual study programme. Participation in the project offers employers the opportunity to attract high achievers who would otherwise not consider IVET. During the work-based phases of the dual study programme, employers have a chance to get to know potential employees over a significant period of time and to train them according to the company's skills needs.

#### 7.2.4.4. *Behavioural elements targeted*

The TrainingPlus project offers higher education institutions and cooperating employers the opportunity to make their study programmes and training courses more visible; it targets high-achieving young people, leaving secondary schools with higher education entrance qualifications. As a secondary effect, cooperation in dual study programme can support knowledge transfer between companies and higher education institutions (Weich, 2008).

For employers, the project opens a channel of communication with a pool of high achievers who might otherwise not consider getting into contact with companies because they only consider higher education. While dual study programmes enable these young people to study for a degree, they also engage directly with work-based learning for a period, allowing the employer to participate in their development and to consider them as potential future employees. This allows employers to develop high-level work-based training opportunities and to attract talented trainees before they graduate from higher education.

For higher education institutions, the project offers the opportunity to engage in systematic collaboration with companies and enterprises, providing a forum for *Fachhochschulen* and other types of institutions to showcase their study programmes. Since they operate in competition with universities, particularly for *Fachhochschulen* and Vocational Academies, dual study programmes are important for developing expertise in applied studies as their niche in the higher education market. The project offers the opportunity to engage in prestigious collaborations with industry and commerce, resulting in high transition rates of graduates into the regional labour market.

For school-leavers the project increases transparency of available options. It shows students with higher education entrance qualifications, who are undecided between entering higher education and going for VET in the dual system, that they can do both at the same time. The project communicates convincingly that the combination dual study programmes offer is a growing route into graduate employment. Substantial, well-structured work-based training phases in the training company allow students to develop a sense of identification with their

company (Weich, 2008). Most students in dual study programmes are taken on by their training company as full employees on graduation.

#### 7.2.4.5. *Tools/policy instruments*

The TrainingPlus project showcases successful cooperation between higher education institutions and employers, and encourages further engagement between the two. By providing guidance on how cooperation can be established and developed, and by stressing the benefits for all groups involved, employers and higher education institutions are encouraged to set-up dual study programmes.

The project does not offer any direct financial inducement for employers or higher education institutions but offers free guidance on, and advertisement for, dual study programmes. However, higher education institutions receive public money for developing these study programmes. The Bavarian Ministry of Education and Research is funding an association of 17 Bavarian *Fachhochschulen* for developing dual study programmes in collaboration with local and regional employers but also with large scale companies such as BMW, Audi and Infineon, thus combining central funding with regionalised development (Weich, 2011). The funding from the ministry is mainly used to set up quality assurance mechanisms, to initiate the collaboration with employers and local chambers, and to aid exchange of experience between participating *Fachhochschulen*.

#### 7.2.4.6. *Evidence for effectiveness*

A study of all companies currently involved in the project aimed at examining their reasons for engagement. The authors of the study hope that this will guide development of the project, reacting to the employer skills demands with targeted additional qualifications and dual study programmes. They focused on the quality of what is on offer now and on the extent to which additional qualifications and dual study programmes are used by specific employers. The questionnaire used by the study resulted in over 1 400 responses (Goeser and Isenmann, 2011).

Most employers participating in dual study programmes are satisfied (59.6%) or very satisfied (37.5%) with the quality of the programmes. When asked about key important factors reflecting quality, most mention the integration of theory and practice (73.8%) and the close collaboration with the higher education institutions. Employers were asked to compare the quality of dual study and conventional degree programmes. In line with the very positive perception of dual study programme quality, most participating employers rate these programmes better (51%) or clearly better (23%) than conventional degree programmes. Half of participating employers also expect increasing demand for dual study programmes

in the future; 46% expect demand to remain at the same level. Engineering is seen as the sector with the most potential growth, followed by IT, business studies and natural sciences.

Just under three-quarters of participating companies reported that they recruit all (45.6%) or over 75% (27.6%) of their trainees after they graduate from the dual study programme. Only 11% report that they take on fewer than half of trainees. Most dual study programme graduates (58.8%) recruited are offered a permanent contract straight away. This compares favourably with the equivalent figure of 31.9% for graduates from conventional degree programmes, who are much more likely to be offered a place in a trainee programme or a placement. Compared with graduates from conventional degree programmes, those from dual study programmes have a higher level of knowledge about company processes and procedures, according to employers. They are also more used to working independently and demonstrate higher levels of motivation.

These findings are very positive and give rise to the expectation that dual study programmes will continue to grow, both nationally and regionally (Weich, 2008). There are also clear indications that companies regard engagement in dual study programmes as an effective way of developing and recruiting highly-skilled employees. However, the data reported here are derived from assessing the views of employers who are currently actively involved in dual study programmes and are likely to be more convinced than others of their value.

Nevertheless, in a smaller study of a representative sample of 500 employers in the Federal State of Bavaria in 2007, 62% of employers indicated interest in collaborating with higher education on dual study programmes (TNS, 2007, quoted in Weich, 2008). The interest expressed was very similar across small, medium and large companies, counteracting the view that dual study programmes are only suitable for bigger enterprises.

There is no systematic study on the effectiveness of dual study programmes for participating students. Participant reports on their experience provide anecdotal evidence that programmes are particularly attractive to students who want to combine their higher education studies with a dual system qualification, which is seen as an 'insurance option' in case the bachelor degree does not lead to traditional graduate employment. Students also value the opportunity to get to know the world of work generally, to gain practical work experience, and to get to know an employer. Further advantages perceived by students are the training salary usually paid by the training company and the possibility of the training company offering a permanent job after graduation (AusbildungPlus, 2012b). However, it is not clear to what extent these assessments are representative of all students.

#### 7.2.4.7. *Wider outcomes*

The TrainingPlus project plays an important role in promoting IVET to high-achieving students who usually consider higher education as their best option. The project has aided the growth of dual study programmes as a pathway combining vocational and higher education. This, in turn, has had a positive impact on the status of IVET in German society.

The project seems to work because all involved (students, employers, higher education institutions) benefit from it, despite the fact that there is no direct financial reward for participating for either group. Some general developments in the policy area of education have contributed to the project success: the introduction of bachelor degrees after the signing of the Bologna Declaration has created new spaces and more competition between different types of higher education institutions: this has opened up a niche for dual study programmes. A further factor is the growing importance of employability skills in all sectors of education, which has put pressure on higher education to collaborate with the world of work to make their programmes more relevant to employers. Finally, the trend towards higher levels of education, resulting in a growing proportion of the age cohort attaining higher education entrance qualifications, has meant that many young people, for whom dual system training would have traditionally been the most attractive option available, have higher expectations of IVET. The TrainingPlus project can be regarded as an effective response to these changing contexts.

#### 7.2.5. **Conclusion**

The two case studies presented here are aimed at making IVET in Germany more attractive 'at the edges' of the dual system. The educational chains initiative aims at supporting young people at the lower end of the achievement spectrum in gaining a place in the dual system. The TrainingPlus project aims to ensure that dual system training remains attractive for high-achieving school leavers. Both measures reflect the strong commitment of all relevant actors to the dual system and its contribution to the competitiveness of the German economy.

### 7.3. **Finland**

#### 7.3.1. **Introduction**

Finland considers skills competitions as one strategy that has helped raise IVET attractiveness (Cedefop ReferNet Finland, 2011). The Ministry of Education and Culture supports Skills Finland, a not-for-profit organisation which organises national skills competitions and selects and trains participants through a three-

stage training model, with the goal of competing internationally (EuroSkills, WorldSkills and Abilympics). The Ministry also funds research related to skills competitions. Skills demonstrations, devised and implemented in cooperation with VET providers and employers, are the main assessment method in VET since 2006 (Watters, 2009). Demonstrations and competitions are seen as complimentary activities in the sense that both are focused on improving vocational competences to a high standard.

Skills competitions are intended to increase VET attractiveness by highlighting skills and increasing participants' interest in a vocational field and in developing proficiency in their chosen field. Competitions provide a 'showcase' for skills and are designed to inspire young people to aim for excellence and to encourage entrepreneurship. They also aim to provide benefits to employers, training providers, and society.

During the past decade, the Ministry of Education and Culture has provided financial support to social partners for several campaigns, and the social partners have initiated their own campaigns to improve the image of vocational education in a particular field or sector. Campaigns have also been cited as increasing IVET attractiveness (Cedefop ReferNet Finland, 2011). This case study focused on examples from two employment sectors.

### **7.3.2. Context**

#### *7.3.2.1. VET is attractive*

Upper secondary education in Finland is divided into general upper secondary and VET. Both take about three years to complete and provide eligibility to apply for higher education. VET is popular in Finland, as evidenced by the high share of students entering IVET at upper secondary level. In 2011 about 42% of students enrolled in upper secondary ISCED 3 were studying vocational programmes. Applications for VET programmes exceed supply (Rasku, 2011). Data also indicate that it has been increasing in popularity for some years: in 1998, 34% of students leaving basic education moved to vocational education (Kyrö, 2012).

Eurobarometer data also indicate that VET is popular: 90% of those surveyed reported that VET has a positive image, the second highest response of 27 countries reporting. Some 43% of respondents would recommend vocational education to a young person who is finishing compulsory education. On the relative esteem indicator (difference in percentage recommending general education and the percentage recommending vocational education) Finland is one of eight countries with a positive value (about 20%) and is one of three countries

with above average rates of participation and esteem according to Eurobarometer data <sup>(41)</sup> (European Commission, 2011a).

#### 7.3.2.2. *Good economic picture*

There are broader factors that might affect IVET outcomes and attractiveness <sup>(42)</sup>, the first being that the economic picture in Finland is somewhat positive. Most countries in Europe experienced growth from 2000 to 2007: Finland had particularly rapid growth. Although GDP per capita has declined slightly post 2007, overall it presents a healthy picture compared to the EU average. Some effects are apparent: youth employment (15-25 year-olds) declined slightly, but at 43.0% in 2010 is still in the top-third of EU-27 Member States. Overall unemployment is also low in comparison, at 8.4% in 2010 with 2011 data indicating that overall unemployment and youth unemployment is continuing to decline. The global recession has not affected resource allocation to education or to VET programmes, which as a percentage of GDP is slightly higher than the EU average.

#### 7.3.2.3. *Mixed demographic and attainment picture*

Statistics Finland forecasts a population increase during the first half of the century, with growth in the working age population. By 2025, however, almost one-fourth of the population will be over age 65. The old-age dependency ratio will increase more rapidly than the EU average until the 2030s but then will slow (Cedefop ReferNet Finland, 2011). Education attainment across the population is comparatively high, with 44.8% reaching at least upper secondary education and 31.6% with tertiary education in 2010.

### 7.3.3. **Case 1: skills competitions**

#### 7.3.3.1. *Description*

Skills competitions are supported by Skills Finland, a not-for-profit association established in 1993, which promotes the quality and attractiveness of skills, VET and entrepreneurship. The competitions include the annual *Taitaja-Mästare*, the Finnish championship in vocational skills and the junior event *Taitaja-Mästare9*. These were initiated in Finland in 1988 and 2000, respectively. Each competition is designed to test technical skills as well as 'high order 21st century skills' and to do so within a specified time frame (Lankinen, 2010).

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<sup>(41)</sup> The other two countries are the Netherlands and Austria.

<sup>(42)</sup> European Commission, 2011a; Cedefop ReferNet Finland, 2011.

In *Taitaja-Mästare* teams of three students (age 15-16) at comprehensive schools compete in tasks requiring dexterity (craftsmanship). Hundreds of trial competitions are held around Finland, and finals take place with the annual *Taitaja-Mästare*. The competitions aim to help young people to select their careers and training paths, assist schools in guidance and counselling, and increase school-leaver awareness of trades and skills requirements (Skills Finland, 2009).

The *Taitaja-Mästare* is an annual competition for young VET students and apprentices under 20, who compete for the Finnish championships in about 40 vocational skill areas over three days. Skills categories for students with special needs are also organised, covering three to five skill areas (*Taitaja-Mästare Plus*, initiated in 2007).

The competitions require students to perform a task or set of tasks that are designed to capture skills at work and test essential skills and competences. They are judged according to standards set by the national qualification requirements, which in Finland are developed in partnership with economic partners (employer and employee bodies). The national competitions help identify talented young people to represent Finland at international skills competitions.

The *Taitaja-Mästare* is the largest yearly education and training event in Finland. Skill shows and try-a-skill opportunities are offered alongside competitions. The event acts as a unique meeting point for students, teachers, employers, VET providers, research institutions and education administration<sup>(43)</sup>. In 2012, it involved 400 competitors in 42 skill areas and attracted over 42 000 visitors. Over 100 ninth graders competed in the *Taitaja-Mästare* craftsmanship competitions<sup>(44)</sup>. The national competition is seen not only as a competition, but also as a marketing event and a trade show (Lankinen, 2010).

Skills Finland has also developed a three-step training system for international competitions (see summary below). The goal of the training is not only to prepare young people for competition, but also to motivate participants – both competitors and trainers – to develop themselves and their work skills and to improve their ability to cope with working life. It develops the competence of vocational teachers, which in turn can raise the status of VET. Training is designed so that skills developed during training and competitions can be

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<sup>(43)</sup> Skills Finland selects and manages TeamFinland, for international WorldSkills, EuroSkills and Abilympics competitions. It has developed training models and created a nationwide network of vocational colleges and companies. Students training for international competitions gain national vocational qualification certificates, further vocational qualifications and specialist vocational qualifications. It also trains specialists who act as supervisors, judges, coaches or trainers in skills competitions (for further information see Skills Finland, 2009).

<sup>(44)</sup> <http://www.taitaja2012.fi/en/news.html>

recognised as studies that contribute to completion of a vocational degree. The 'excellence in training' system is continuously developed in cooperation with VET providers, economic partners and research centres, and has been supported by European Social Funds (ESF), covering years 2002-13.

**Box 1. The three-step training system**

Skills Finland coordinates, develops and supports training for excellence with the aid of specific ESF-funded projects. In cases involving an international competition, training follows a three-step system: basic training, training for excellence and national team training.

The group-based basic training phase is meant for high-performing students, with 3 to 10 competitors from around the country chosen for each skill. The basic training group will participate in qualifier competitions and about six will then proceed to training for excellence.

The national team training phase is meant only for those chosen to compete at an international event and for their possible stand-ins, who will observe the national team's exercises in preparation for possible participation in upcoming competitions. This training phase focuses on the attainment of vocational, competitive, mental and physical abilities that enable the competitor to participate in international competitions and display the same level of excellence as other top competitors from around the world <sup>(a)</sup>.

Finland has participated in WorldSkills since 1989, Abilympics since 2007 and EuroSkills since 2008 (Lankinen, 2010). A main objective for participating in international competitions is to learn about good practice and to benchmark Finland's programme against international standards (discussed further below).

<sup>(a)</sup> <http://www.skillsfinland.fi/en/trainingandcoaching> [accessed 8.10.2013].

**7.3.3.2. Level of implementation**

In 2012, the national competitions involved 400 competitors in 42 skill areas, plus 100 ninth graders who competed in craftsmanship competitions. A total of 29 Finns competed at WorldSkills London 2011. Although these are small numbers compared to IVET enrolment in Finland, they should be taken in the wider context of the numerous competitive events that have led to the national competitions and the central role of skills demonstrations in vocational education, involving all vocational education students.

Since 2006, skills demonstrations have been the primary method for assessing learning outcomes in IVET, and are undertaken during student training, though in a non-competitive context, mainly during periods of on-the-job learning (Cedefop ReferNet Finland, 2011). They are devised and carried out in

cooperation with social partners <sup>(45)</sup>, following national core curricula and standards. Special bodies, 'local boards for vocational skills demonstrations,' are responsible for demonstrations and appoint assessors (Cedefop ReferNet Finland, 2011; Watters, 2009).

#### 7.3.3.3. *Target group*

Target groups are the Ninth graders (15-16 year-olds) at comprehensive schools for *Taitaja-Mästare9* and young people up to age 20 for *Taitaja-Mästare*. Competitors in WorldSkills competitions (WSC) can be up to 23 years of age. However, the reach of skills competitions goes beyond the young people involved, to the entire network of individuals and organisations that support VET in Finland, including teachers, trainers, vocational schools and employers.

#### 7.3.3.4. *Behavioural elements*

The promoters of skills competitions cite several benefits, which may help to encourage participation in different ways. They are intended to increase VET attractiveness by highlighting skills and vocational competence. The primary purpose is to raise awareness and promote the learning of professional skills and the dissemination of good practices: competition in itself is seen as secondary. The competitions demonstrate professional competence and workmanship to a diverse audience: the competitors, experts, young people about to choose their careers, and the general public. This first-hand observation is expected to change prejudices and preconceptions about professions may (Hellakorpi, 2010).

Skills competitions and events are thought to affect businesses, teachers and the wider vocational education enterprise, individuals and society. For example, it is expected that competitions can provide opportunities for businesses to become more familiar with the level of vocational education, to further the workplace orientation of education, and to be a recruiting source of young professionals (Eerola, 2010). Other employer benefits include the opportunity to compare the quality of the training against national and international benchmarks, to demonstrate commitment to high standards of training and personal development

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<sup>(45)</sup> National qualification requirements are drawn up by the Finnish National Board of Education in cooperation with employer organisations, trade unions, the Trade Union of Education and student unions. They are dealt with by national education and training committees, tripartite bodies established for each occupational field by the Ministry of Education for a term of three years at a time to plan and develop vocational education and training. Local tripartite bodies and other representatives of working life take part in the curriculum work as advisers and consultants. Local curricula are approved by the boards of education providers (Cedefop ReferNet Finland, 2011, p. 32).

(enhances reputation as a responsible employer and promotes their equipment and products (Lankinen, 2010).

Coaching and organising skills competitions help develop teacher competences and educational institutions (e.g. their internal operations, internationalisation and business partnerships). Training and coaching for competition help to develop individually-oriented and workplace-oriented instruction methods, which can then be used across vocational education (Eerola, 2010). Training providers build up a network of professionals to exchange good practices and information (nationally and globally) (Lankinen, 2010).

The benefits to individuals include personal development (self-esteem and motivation), experience working under pressure, opportunity to compare skills against peers (mirrors the competitive world of work), development of individual portfolios, having fun, and making contacts (Lankinen, 2010).

#### 7.3.3.5. *Tools/policy instruments*

Improving the quality and attractiveness of VET has been on the national policy agenda for some years; skills competitions are seen as one route to this objective. The Ministry of Education and Culture supports Skills Finland's work, which is seen as part of the overall government strategy for enhancing VET. Government representatives are part of the Skills Finland organisation: the Chair of the Board is from the ministry and the vice-chair from the Finnish National Board of Education.

VET in Finland is financed by the State (Ministry of Education and Culture) and managed by VET providers (mainly municipalities or joint municipalities). The national competitions (*Taitaja*) are organised by the VET providers. Each year, Skills Finland invites proposals and evaluates applications for the provider who will officially organise the competition. The ministry is the main funder of the national competitions, and provides extra funding to the VET provider who is organising the event; over 400 companies also sponsor the competitions each year and VET schools pay competitor participation fees from their own budgets. The cost of training competitors for international competitions is mainly through an ESF-funded project run by Skills Finland. The cost of competitors and experts is jointly funded by VET schools, companies, and sector organisations.

Skills demonstrations have been regulated by law as part of the national curriculum since 2006. One of the objectives of the national competitions is to develop the national demonstration and evaluation system, so competition tasks are based on the national curricula and assessment of the tasks related to national evaluation criteria. In this way they complement the curriculum mandate.

#### 7.3.3.6. *Evidence for effectiveness*

Skills competitions can be seen as part of the wider strategy to use demonstrations, or practical skills tests, to assess learning outcomes in IVET. Watters (2009) reports on a 2004 study of skill demonstrations that showed several positive effects on VET quality, including helping to ensure student learning, increasing assessment relevance to labour market needs, and developing training and teaching. Students also found the skills demonstrations motivating (See also Rääköläinen and Ecclestone, 2005). The research notes other positive outcomes, such as increased local cooperation between institutions and workplaces, contact between students and the workplace and feedback for teachers and trainers (Finnish National Board of Education, 2006).

Skills competitions are credited with helping to increase the attractiveness of IVET (Cedefop Refernet Finland, 2011; Hellakorpi, 2010). They have inspired the education system to reflect on the meaning of competence and improve the teaching and learning of skills, in addition to providing a basis for coaching in expertise (Hellakorpi, 2010). Positive effects have been reported for teachers, businesses, education institutions and for VET as a whole.

Skills Finland has carried out some limited surveys into employer attitudes to competitions. Companies did not have much knowledge of such competitions before 2005, when the WorldSkills competition (WSC) was held in Helsinki. This event helped to advertise the benefits of competitions to employers. Initially companies were not especially interested but now the 10 to 15 main employers have become partners and are significantly involved in Skills Finland's activities. Some have developed their own strategies for this involvement: one reason is to help identify good job candidates, and is especially important for those employers who have faced recruiting problems. Independent research on Finnish competitors in WorldSkills (discussed further below) will gather systematic data from employers in the coming year.

Results from international skills competitions provide objective measures of the success of the skills competition process. At the WSC London 2011, Finland ranked 16 overall of 51 countries and achieved five silver and three bronze medals and 18 medallions of excellence (29 Finnish competitors, 950 competitors overall). At the WSC Calgary 2009, it ranked 11th of 47 countries, with two gold, one silver and three bronze medals and 14 medallions of excellence (39 Finnish competitors, 850 competitors overall) <sup>(46)</sup>.

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<sup>(46)</sup> Results of WorldSkills competitions can be found at <http://www.worldskills.org> [accessed 19.8.2013].

According to Skills Finland, it is less interested in medals than in the average success of the whole team. It aims for the average score of the whole team to exceed 'diploma' level (over 500 points). In 2011 the team's average score was 504.28, a rise from 494 in 2003.

The specific strategy is to send a large team to international competitions, including in skill areas where it is felt that improvements are needed. This enables competitors and trainers to identify good practices and quality benchmarks. Skills Finland also examines how innovations in the training of competitors are transferred and used in the normal life of VET schools and companies, as part of its ESF-funded project.

Independent research has been carried out on Finnish competitors and experts with support from the Ministry of Education and Culture. Nokelainen<sup>(47)</sup> has been studying Finnish WorldSkills competitors to investigate the relationships between participants' natural abilities, intrinsic characteristics, and extrinsic conditions to different stages of their talent development. Semi-structured interviews with competitors, their parents, trainers, and employer representatives indicated that self-reflection (stress tolerance), volition (perseverance, time management skills), cognitive skills (development potential), and motivation (extrinsic and intrinsic) were considered the most important characteristics. Characteristics related to volition, self-reflection, and cognitive skills played an important role in all three development stages of vocational talent (initial interest, perseverance, and mastery of the skill). Teachers and trainers were also important for vocational talent development. Survey results showed that the most successful competitors at WorldSkills (medal winners) were characterised by their linguistic and interpersonal abilities. Successful competitors also believed that effort was more important to their success than ability. These competitors were more performance-approach goal-oriented: they find the learning interesting and are focused on a task when learning a skill. In contrast, their less successful peers were performance-avoidance-oriented: they focus more on themselves and on avoiding embarrassment than on the task. A supportive home and school atmosphere positively affected the development of vocational talent. This research emphasises the importance of self-regulation (motivation, volition and self-reflection) to success in competitions, all of which can be developed through training. 'Mental training' is now incorporated into the preparation for international skills competitions (Minkinen et al., 2010). This research is continuing to the WSC Leipzig 2013.

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<sup>(47)</sup> Nokelainen and Ruohotie, 2009; Nokelainen, 2011.

Although skills competitions are expected to impact the four main groups involved – individuals, training providers, employers and the State – a recent review concluded that there is little published research available in the academic or other literature (Berry-Lound et al., 2012). According to the review, Nokalainen's studies and his follow-on research (part of the modelling vocational excellence project sponsored by the WorldSkills Foundation) is the most significant work among the few studies identified <sup>(48)</sup>. Arguably, the Ministry of Education and Culture's funding of independent research demonstrates the importance of skills competitions in their VET strategy.

#### 7.3.3.7. *Wider outcomes*

Skills competitions hold a prominent place in IVET and are credited with increasing its attractiveness and quality. Competitions tie into the use of skill demonstrations as a mandatory part of the VET curriculum, and the competition process appears to have influenced teaching in VET, as evidenced by the training materials developed by Skills Finland and the organisation's attention to how training feeds back into VET teaching at schools and enterprises. The competitions involve all key stakeholders, with almost all VET providers reported as members of Skills Finland and committed to its work. The national competitions attract tens of thousands of visitors, raising the profile of vocational excellence for the general public. Research evidence concerning skills competitions has, to date, focused on understanding the factors that contribute to the development of vocational excellence, so that further improvements can be made to instructional practices <sup>(49)</sup>. This research is in keeping with the overall aim of skills competitions as part of the national strategy for improving quality in VET.

Government policy-makers also view skills competitions within the wider European policy context for VET as an activity that can contribute to several EU policy initiatives: to improve VET attractiveness; improve training quality and skill levels; promote entrepreneurship, labour market entry and mobility; and support needed improvements in guidance and counselling (Lankinen, 2010).

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<sup>(48)</sup> The modelling vocational excellence project (headed by Professor Petri Nokelainen with a team of researchers from Australia and the UK) gathered survey data from competitors and experts from 38 countries at WSC London 2011, following on from Nokelainen's original research in Finland. Findings from the research are reported by the WorldSkills Foundation (Nokelainen et al., 2012). A few studies have also been carried out by researchers in Australia and the UK.

<sup>(49)</sup> Nokelainen's research is the only independent research currently conducted at Skills Finland. The next phase of the research will include employers, in order to gain more systematic understanding of their participation.

The success of skills competitions as an initiative for increasing IVET attractiveness can be attributed to several factors:

- (a) competitions are seen as part of the ministry's broader strategy to improve quality and attractiveness in Finland and also as complementary to the Copenhagen process;
- (b) because competitions are viewed within a broad strategy, rather than as a stand-alone initiative, the activities associated with competitions can be integrated with other policies. They are designed to align with the national curriculum and complement the mandated skills demonstrations which are part of the qualifications requirements;
- (c) skills Finland has been developed as the dedicated organisation for national and international skills competitions, with ministry support and with key national-level policy-makers on its board;
- (d) skills Finland reaches out to stakeholders beyond the competitors in ways that can make a difference to them. It has responsibility for ensuring that lessons learned through competitions are transferred to VET education and training providers and to companies so that all can benefit.

#### **7.3.4. Case 2: information campaigns**

##### *7.3.4.1. Description*

Over the past decade, the Ministry of Education and Culture has provided financial support to social partners for several campaigns, or the social partners have initiated their own campaigns to improve the image of VET in a particular field or sector (metalwork and machinery, natural and environmental protection, technology, transportation services, and construction and property maintenance services). Typically, the campaigns are designed through the working groups of the national education and training committees (34 field-specific committees), tripartite bodies established to plan and develop VET. One role of the committees is to work with the Finnish National Board of Education as curriculum advisors and consultants. The organisation of campaigns around sectors differs from those in the Czech Republic, discussed later in this chapter, which are mainly at regional level.

This case study highlights examples from two sectors: technology and cleaning services.

#### **Technology**

The technology industry comprised a quarter of Finland's workforce in 2010 and the Federation of Finnish Technology Industries (*Teknoliigatollisuus*) has several initiatives to increase its attractiveness. This review focuses on two: an

online information service for young people and the This Works! competition for pupils in grades one to six.

The online service for young people (*opiskelijaboxi* or student box) provides a wealth of information about the industry <sup>(50)</sup>. The site presents a broad overview of the technology industry, such as the industry-associated products and services found in everyday life and information about the size of the sector in Finland. It explains how the sector comprises five different industries: electrics and electrical; mechanical engineering and metal manufacturing; metal processing; information technology; and design. It outlines opportunities for employment in both small and large companies and emphasises the global nature of the sector. Video and interviews with employers are also featured.

Visitors to the site can access information on opportunities to study in the sector at different levels: secondary school, college, university of applied science, and university. Information is tailored to each level; for example, the secondary school level encourages students to think about what they want to study in the future and how this might affect what is studied in school. It points out that mathematics and science are subjects that open up future opportunities for study. The sections on college and higher levels provide more specific information about course options, length of studies, and so on. At each level, visitors can access multiple interviews with students, professionals, and vocational teachers, organised by field of study and/or job description. The 'My future' section aims to inspire young people to reflect on what the technology is and who does it. From January to April students can search for summer jobs available in companies, receive guidance on searching for summer jobs, and read narratives by summer employees about their own experiences.

A second technology industry initiative to increase attractiveness is 'This Works!', a national technology competition for basic education pupils in grades one to six. It aims to encourage pupils to think of creative solutions to technological challenges and problems in everyday life. Usually working in mixed-gender teams of four, students invent and build a mobile toy, create an advertisement for the toy and keep a journal of the process. This is done during the regular school day. The process of putting together their mobile toy, work journal and advertisement requires, at the very least, skills and knowledge in mathematics, physics, Finnish, drawing, art, crafts and music. The initiative provides a pedagogical platform for teachers to engage in interdisciplinary teaching about technology. It supports an authentic learning method where

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<sup>(50)</sup> <http://www.opiskelijaboxi.fi> [accessed 20.8.2013].

students set their own goals, generate ideas, consider methods and their implementation, put their plans into practice and test their products.

Teachers enter their pupils in the This Works! process in the autumn term, and the Federation of Finnish Technology Industries supplies participating schools with free material kits for building the mobile toys. The teams have five weeks to complete their projects, carried out in conjunction with technology teaching. The participating schools arrange their own competitions to choose their representatives for regional preliminary competitions, held in 15 locations across Finland. A total of 15 teams in each of two categories (category A for grades 1-3 and category B for grades 4-6) go on to the regional competitions. The best single projects in each category go on to the national finals where teams present their entries to the judges and to each other during one-day events. The events also include representation from higher education institutions, departments of teacher education, polytechnics and vocational colleges, so that children get a view of where they can pursue their studies and interests in technology.

The projects are evaluated mainly on the originality of the mobile toy they create, but their advertising strategy and journals are also considered. The pupils are completely unrestricted as to the form and implementation of the journal and advertisement components. The projects are evaluated by a specially trained jury and teams evaluate each other's projects in terms of general attractiveness and playability.

### **Cleaning service sector**

Several campaigns have been carried out in the cleaning service sector, under the direction of the Finnish Cleaning Technical Association (SSTL). Founded in 1970, SSTL is the business advisory and training organisation for the sector with a network of 17 member associations and 80 corporate entities throughout Finland. It publishes a newsletter, produces learning materials, and organises industry-related events. This sector represents the third most common profession for women in Finland and includes a wide variety of occupations at various premises. In 2011, 11% of IVET graduates were qualified in the sector (tourism, catering and domestic services).

The first campaign was *Tuunaa Duunis*, a pilot project from 2005 to 2007 aiming to increase attractiveness of the cleaning sector among young people; it was initiated in response to shortages of students and workers. It was felt that young people had a narrow view of cleaning jobs as only involving hard or dirty work, which did not appeal to them, so the campaign sought to highlight the variety of jobs, working environments and opportunities for advancement. It included several activities: the communication strategy of the cleaning service sector (2006-08); a slogan and logo; an action plan (marketing materials,

products, website, media campaign before the introduction of the joint national application <sup>(51)</sup> and participation in education fairs); introduction of the cleaning service in the national *Taitaja* skills competition; and development of a VET schools network in the sector.

A second campaign was initiated in 2009-10, which included further design of the website (to include pictures, video clips and personal stories) <sup>(52)</sup>. The site provides information about VET opportunities in the country via an education and training map that illustrates where VET programmes are offered (location and name of schools) and provides a link to the joint application system for entry into upper secondary education. It describes the diversity of cleaning service occupations, vocational qualifications available (including IVET, apprenticeships, and further and specialist qualifications) <sup>(53)</sup>, progression routes for those having initial qualifications <sup>(54)</sup>, and educational opportunities beyond secondary school (such as at university for hotel and restaurant management, tourism and hospitality). Information about expected salaries is also provided. A video archive includes short videos of individuals who talk about their jobs. The job descriptions include cleaning manager, cleaning supervisor, office cleaning, hospital guardian, and catering and cleaning in schools. An employer section provides information about cleaning services training, vocational education laws and regulations, statistics, work-based learning and other topics. Another section provides information for those already employed in the industry, such as further education and training opportunities. The cost of initiating these campaigns has been fairly modest <sup>(55)</sup>.

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<sup>(51)</sup> The joint national application system for upper secondary education, initiated in 2009, enabled young people to apply for either general or vocational programmes. From this year, most young people have selected VET as their primary choice. This initiative has been credited as one factor that has increased the popularity of IVET in Finland (Cedefop ReferNet Finland, 2011).

<sup>(52)</sup> <http://www.puhtausala.fi> (hygiene industry); <http://www.puhdasveto.fi>

<sup>(53)</sup> Programmes leading to further (ISCED 3) and specialist qualifications (ISCED 4) are mainly work-based, generally of shorter duration than IVET programmes and geared to adults.

<sup>(54)</sup> Those with a vocational qualification or equivalent recognised skills acquired at work can pursue vocational qualifications as hospital attendants and cleaning supervisors or specialists.

<sup>(55)</sup> A key informant estimated funding of EUR 45 000 for the pilot and EUR 10 000 for the follow-on (not counting costs associated with updating the website).

#### 7.3.4.2. *Level of implementation and target group*

The student box mainly targets students and provides general information about the sector as well as tailored information related to different education levels.

The This works! initiative targets primary school pupils from grades 1-6 and their teachers nationally. It has expanded significantly from its pilot year in 2003, when 400 pupils entered the competition. In 2012, over 21 000 pupils participated in regional competitions, entered by 1 000 teachers in over 300 elementary schools. Over 5 300 mobile toys were created.

The first campaign associated with the cleaning industry was aimed at young people and comprehensive school leavers. The second targeted young people, students who might want to change their occupational area or who are considering studies in the sector, immigrants, employers, parents, counsellors, and others interested in finding out about the industry. It also targeted individuals who were already working in the sector, especially older workers and immigrants, to provide information on what further education might be needed for them to gain relevant qualifications. The website has tailored information for several of these groups. The first campaign ran for two years from 2005 to 2007 and the second from 2009 to 2010, with updates to the website continuing. There are no solid data on the reach of any of the information campaigns to targeted audiences.

#### 7.3.4.3. *Behavioural elements*

The student box presents an overview of the technology industry and more specific information on educational opportunities, jobs and companies. The aim is to expand and diversify the perceptions of young people about the technology industry and jobs available in the sector. The site also explains why languages, mathematics and science are worth studying in school, and why students interested in technology should seek further education. There is emphasis on using personal stories, with over 40 student narratives that describe, for instance, why students chose their field of study, experiences at summer jobs (with further links to the companies where they worked), and future education plans. There are also several short videos of young professionals discussing their work. Messages coming directly from those with experience in the field are potentially powerful because they are seen as more relevant and credible. This site includes multiple stories or narratives from employers, working professionals (over 100 narratives) and teachers. Student stories are likely to be especially appealing and highly credible to other young people; over 100 stories from students at different stages of education can be accessed. Data from Finland on the 2011 Eurobarometer indicate that friends are more important than teachers, employers or family with regard to receiving advice about education choices (Chapter 4).

The This Works! initiative focuses on teachers and primary school pupils. It aims to encourage pupils to think of creative solutions to technological challenges and problems in everyday life. The thinking behind the toy designing brief is that it will engage and inspire students in a 'fun' activity while introducing them to the wider world of technology. For teachers, the initiative offers methods for teaching about technology and provides a specific tool for them to use. The competition element can be seen as introducing students to the idea of skills demonstrations used to assess vocational competences or to the national skills competitions that students may engage in at later stages in their education.

The cleaning services pilot initiative created a clear action plan which formed a basis for alignment within the sector. The expectation was that relevant actors in the sector would increase cooperation; it also intended to create a positive image of the sector in the media and to the public. The second campaign placed more emphasis on the website and there are plans to expand the information to target VET providers, career and guidance counsellors and local labour offices.

Personal stories are a feature in the communication strategies developed in both industries; both provide stories from individuals who are engaged in the field and who are likely to be believed as credible and reliable sources of information. In the case of the cleaning sector, the use of video narratives was deliberate. It was felt that the videos would be more appealing than written narratives to young people, who might be less inclined to read long stories. The video clips are also effective at illustrating the types of tasks and working environments associated with different jobs, even if the viewer is not fluent in Finnish; this illustrates an intent to appeal directly to the immigrant population. The individuals highlighted in the videos also vary by gender and ethnic background.

#### 7.3.4.4. *Tools/policy instruments*

According to one informant, the Ministry of Education and Culture and the Finnish National Board of Education (FNBE) have been working with different stakeholders during the past 15 years to increase the attractiveness of VET. The FNBE has responsibility for national core curricula and qualification requirements and implementation of development programmes. All of the industry-led initiatives discussed here show connection to the nationally-mandated curricula and qualification frameworks, and are involved in developing curriculum through their respective national education and training committees.

The 'This Works!' initiative uses innovation as a method of learning in primary schools. Participation is voluntary. The primary school technology education goal is for pupils to understand the significance of technology in everyday life and educate them in the use and control of technology and its effects. The curriculum goal is to guide pupils to become responsible users and developers of technology.

In addition to aligning with the curriculum, it can be seen as a capacity-building instrument that supports the professional development of technology teachers. The competition aspect of the initiative complements the national policies related to skill demonstrations and competitions by introducing them at an early school age.

The first campaign in the cleaning services sector supported and developed capacity related to national initiatives (skills competition, joint application for upper secondary school) and the information provided on the websites (for both industries) is aligned with national curricula and requirements. Media campaigns, like the web-based examples discussed here, are primarily hortatory tools: they present information in a way that may connect with individuals and encourage them to action (to pursue a career or continue their education in technology or cleaning services) and can be important for supporting other policy aims. The student box, for example, points out a need for new technology professionals to replace retiring ones. It presents information to convince students that, in this field, VET is an attractive option. In doing so it communicates important messages, but is a 'soft' policy tool compared to other types of policy levers <sup>(56)</sup>.

#### 7.3.4.5. *Evidence for effectiveness*

There have been no formal evaluations of the This Works! campaign, although it has expanded from 2003, with now over 21 000 students and 1 000 teachers participating.

There have been no formal evaluations of either campaign sponsored by the Finnish Cleaning Technical Association (SSTL); the pilot project was monitored to provide suggestions for further development. The action plan developed as part of the pilot has reportedly provided a solid basis for continuing the work and for cooperation among various actors in the sector. There is also some evidence that the second campaign has reached guidance counsellors who work with those considering the sector for further study and with those already employed. VET providers are tasked with entering new information about their programmes, but this has not always happened. The SSTL has responsibility for continuing to update the website.

Information campaigns have been credited with increasing the attractiveness of IVET in Finland; documentation and key informants cite the high participation rate of VET students at ISCED 3 and 4 (71.5% in 2010) as evidence for their

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<sup>(56)</sup> An inducement-type policy that provides funding to young people to pursue training for jobs in high demand occupations can be described as a 'hard' method. For further discussion on types of policy instruments see Leney et al. (2004); Stasz and Wright (2004).

success. Policy-makers can also track whether numbers of individuals studying or working in different sectors is on the rise, although the extent to which any rises could be specifically attributed to the campaigns is uncertain.

#### 7.3.4.6. *Wider outcomes*

The initiatives described here are a few examples of industry-led activities to increase attractiveness of particular occupational sectors and to provide information to students, employers, employees, guidance counsellors and other stakeholders about opportunities for related education and training in Finland. Both examples show the presence of strong links and cooperation between social partners and government agencies. Each industry example also shows elements of coordination of their campaigns with other national initiatives, such as skills competitions, or with national curriculum priorities, so campaigns complement national education and training policies.

Evidence for the success of the information campaigns is largely anecdotal, but it is believed that campaigns have been partly responsible for increasing IVET attractiveness in Finland, which has high rates of participation in VET compared with other countries.

#### **7.3.5. Conclusion**

The Finland study presents initiatives which have been specifically credited with raising the attractiveness of VET. A key feature of these initiatives is their integration with national policy and strategic direction. This is possible due to cooperation between the government, other national agencies, and social partners.

From a policy perspective, Finland combines a centralised, top-down strategy with a bottom up 'deliberative change' process (Leney et al., 2004). The Ministry has taken the lead in promoting policies and programmes to raise the attractiveness of IVET, which has been on their policy agenda for some years<sup>(57)</sup>. Some activities relevant to the case study examples are legislated, such as skills demonstrations as a mandatory requirement for vocational qualification or the involvement of social partners in developing the national core curricula. The legislative framework around IVET also provides independent decision-making powers to local authorities and schools. The Finnish National Board of Education, as a government body under the Ministry, plays a central role in its responsibility for the national core curricula and qualifications requirements; the social partners, through the national education and training committees, participate in the

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<sup>(57)</sup> For example see Lasonen and Young (1998), and Chapter 4.

development of these curricula. This structure enables alignment between government strategy and social partner initiatives, as illustrated in the sector-led campaigns.

While the Ministry provides financial inducements for skills competitions and campaigns, the success of both depends mainly on voluntary and collaborative change processes. The VET legislation sets up this cooperation in outlining roles for social partners, but effective partnership requires all parties to contribute and receiving benefits. The high level of cooperation among government bodies and social partners has been historically strong in Finland and supports a sense of mutual obligation in which all parties come together to act in a common interest.

## 7.4. Ireland

### 7.4.1. Introduction

VET programmes are provided in upper-secondary, further and higher education. The integration of VET in the continuum of education is part of the national lifelong learning strategy <sup>(58)</sup> that has been under development since the 1990s, so there is no distinct VET sector. For the purposes of this study the focus is on programmes within the further education and training (FET) sector <sup>(59)</sup> that relate to the definition of VET programmes adopted for this report.

A key feature of continuing reform is the blurring of distinctions between traditional education and training sectors, provider institutions and learners. The highest level of qualification can be acquired in institutions traditionally associated with VET; the VET student of today may become the higher education student of the future and *vice versa*, depending on needs and interests. As VET <sup>(60)</sup> becomes increasingly embedded in general, further and higher education, respective programmes adopt their nomenclature rather than VET. This rebranding of VET helps to remove stigma, largely related to the association of VET with socioeconomic disadvantage, while endeavouring to maintain the distinctive characteristics of VET that make it attractive for employers and learners.

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<sup>(58)</sup> The aim of this strategy is two-fold: to ensure equitable access for all citizens to high quality learning opportunities throughout life, which meet their needs, fulfil their expectations and enable them to contribute fully to society and economic life; and to motivate citizens to learn and upgrade their qualifications continuously.

<sup>(59)</sup> It comprises general, prevocational and vocational education and training provision.

<sup>(60)</sup> For this study the acronym VET is used for relevant provision that may be termed general/further/higher education in Ireland.

## 7.4.2. Context

### 7.4.2.1. *Population change and increased cultural heterogeneity*

In two decades there has been a 30% increase, almost one million people, in the Irish population (4.5 million); it is the youngest in the EU with the highest birth rate and a below average median age. During the economic boom years, from the late 1990s to 2007, the State experienced unprecedented inward migration flows transforming Ireland, which had been one of Europe's most ethnically homogeneous societies; the share of foreign-born rose from 6% in 1991 to 17% in 2011<sup>(61)</sup>. Net migration changed from 71.8 in 2006 to -34.1 in 2011 and skills' loss is now a major concern.

### 7.4.2.2. *Social stratification*

As Ireland's economy began to modernise in the second half of the 20th century, labour market inactivity became endemic and intergenerational, creating a social-welfare 'dependent-class'. Economic prosperity lifted many people out of poverty; well-paid 'working class' people were able to have life-styles and social aspirations more associated with the 'middle-class' but the 'dependent-class' struggled in an increasingly unequal society and rich-poor divisions became more entrenched<sup>(62)</sup>.

### 7.4.2.3. *Economic change*

During the boom, Ireland consolidated its position as the second most globalised nation in the world<sup>(63)</sup>, largely due to high inward direct investment by multinational companies<sup>(64)</sup>, attained almost full employment and GDP growth averaged at about 5.6% annually 2000-07. The crisis led to a 70% decline in investment, a contraction in GDP of 11.8% and 9.3% (Conefrey, 2011) in consumption.

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<sup>(61)</sup> Upgrading the qualifications of foreign-born citizens requires mechanisms to recognise qualifications and ensure their access to learning.

<sup>(62)</sup> In 2008, Ireland ranked 7th of 'unequal' OECD countries. Cited on <http://www.cori.ie/justice2/584-rich-poor-divide-widens-says-oecd> [accessed 20.8.2013].

<sup>(63)</sup> The KOF index of globalisation: <http://globalization.kof.ethz.ch/> [accessed 20.8.2013].

<sup>(64)</sup> Exceptionally open in trade, migration and finance. Some 1 000 companies had their European hub in Ireland. Between 2000 and 2007 US investment alone into Ireland exceeded USD 56 billion compared to USD 22 billion into China and USD 9 billion into India (Quinlan, 2009).

Table 8. Annual growth developments 2007-11

	2007	2008	2009	2010	2011
Personal consumption	6.5	-1.1	-6.9	-0.8	-2.7
Government consumption	6.6	0.5	-4.5	-3.8	-3.7
Investment	2.3	-10.2	-28.7	-24.9	-10.6
Exports	8.4	-1.1	-4.2	6.3	4.1
Imports	7.9	-3.0	-9.3	2.7	-0.7
GDP	5.2	-3.0	-7.0	-0.4	0.7
GNP	3.9	-2.8	-9.8	0.3	-2.5

Source: *Monthly economic bulletin*, June 2012, p. 2.  
<http://www.finance.gov.ie/documents/publications/meb%202012/June.pdf>.

Recovery is dependent on many factors <sup>(65)</sup>, including the need to ensure that education is responsive to the needs of a changed, and as yet uncertain, future economy profile. Since 1987, economy policy planning and implementation has been characterised by the principle of social partnership <sup>(66)</sup> set out in multiannual programmes. Programme goals widened beyond macroeconomic issues to include other matters related to economic growth, including lifelong learning and social inclusion. However, the terms of the current programme, *Towards 2016* (Government of Ireland, 2006), are proving difficult to fulfil as a consequence of the recession that also led to the collapse of social partnership in 2009 (Sheehan, 2010); the relationship is now one of social 'dialogue'. Multi-actor partnerships, such as the expert group on future skills needs (EGFSN), continue to play a key role in sustaining the relevance of education for employment and economic recovery.

#### 7.4.2.4. Labour market change

By the late 1990s, skills and labour deficits began to threaten economic growth. The response was two-fold, speeding up reforms in support of lifelong learning and addressing skills and labour shortages through high inward migration flows. From a miniscule percentage, non-nationals comprised 15% of the workforce. The number of working mothers doubled and between 2000 and 2008 the employment rate for females was above the EU average <sup>(67)</sup>. Employment increased in a

<sup>(65)</sup> Including: bank recapitalisation and reform; sustainable public spending; resolving the euro-area crisis; the ability of trading partners to recover; restoration of sustainable economic growth through R&D, emphasis on knowledge-intensive sectors that attract foreign direct investment.

<sup>(66)</sup> A participative democratic approach to policy-making that enables the social partners and other interest groups to enter discussions with government on social and economic matters to reach consensus and play an active role in policy development.

<sup>(67)</sup> Eurostat database.  
<http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/themes>

decade from 1.5 to 2.1 million (1998-2008) and unemployment decreased from 16% to 3.7%. Between 2008 and 2009, the unemployed total had more than doubled, despite net migration turning negative. In 2012 (July), the employment rate is 58.6% (15-64 year-olds), down from almost 70% in 2007, and the unemployment rate is 14.7% <sup>(68)</sup>.

By May 2012, 436 700 persons were signed on the Live Register <sup>(69)</sup>, 60.6% long-term unemployed (CSO, 2012b) and 17.7% foreign nationals (CSO, 2012a). The unemployment rate for men is almost twice that for women. The largest occupational group on the register in 2012, at 24%, is craft sector workers, predominantly male holders of VET qualifications. Apprenticeship, a highly attractive VET pathway for males, has been worst affected by the crisis and recession.

While the effect of low educational attainment on employment opportunities is well known, Table 9 demonstrates the impact of the economic crisis and recession on holders of post-leaving certificates (PLC). PLC is the flagship VET programme that attracts the highest number of enrolments. PLC programmes are labour market justified and responsive to local needs. During the boom years, demand for PLC graduates in new and growing sectors was great (ICT, e-Commerce, media, care, leisure, beauty, fashion, fitness and wellness). In recent years many of these sectors have experienced shrinkage. Unemployment rates influence the attractiveness of PLC and VET.

The national skills strategy (NSS) informs policy that aims to reorient PLC and apprenticeships to current needs and facilitate the skills maintenance and/or reskilling of graduates while the national framework of qualifications (NFQ) helps them gain new qualifications. The strategy helps to trigger measures that aim to counteract the consequences of the recession for all young people, as they have been most severely affected by the crisis and recession.

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<sup>(68)</sup> Central Statistics Office: seasonally adjusted standardised unemployment rates.  
<http://www.cso.ie/en/statistics/labourmarket/principalstatistics/seasonallyadjustedstandardisedunemploymentratesur/>

<sup>(69)</sup> People on 'activation' programmes are not counted as part of the live register.

Table 9. **Unemployment rate (25-64) by highest level of education**

	Primary	Lower secondary	Upper secondary	PLC	Third level non-degree	Third level degree and above
2000	9	5	3	2	2	2
2005	8	5	3	3	2	2
2008	8	7	4	5	4	2
2011 (*)	24	21	14	18	8	6

Source: CSO (2010); (\*) CSO (2011).

The recession has shifted the focus of skills development policy, including VET, from feeding a voracious labour market to maintaining, enhancing, and developing new skills in the population; this is essential for economic regeneration and growth. In 2012 the government published its *Action plan for jobs* (Government of Ireland, 2012a), committing all government departments and State agencies to take action to support businesses and remove barriers to employment-creation.

### 7.4.3. Lifelong learning

#### 7.4.3.1. Education trajectories and attainment levels

There has been a steep rise in the educational attainment of the population since the 1970s and enrolment, completion and third-level attainment rates continue to increase. The trend for young people is to progress directly through the system to achieve the highest level of qualification. In 2011, only 10.5% were early leavers from education (14.6% in 2002)<sup>(70)</sup>. Transition to higher education was 65% (57% in 2000).

Ambitious human resources development targets are set for 2020: 90% upper second level retention rate and 72% progression rate to third level, and the attractiveness of secondary and higher education provision. In this context, ensuring that VET at post, upper-second level attracts talented individuals and supports their continuous development, is arguably the greatest challenge for lifelong learning policy implementation.

<sup>(70)</sup> Policy is focused on prevention of early school leaving (Government of Ireland, 2005).

#### 7.4.3.2. *The changing VET landscape*

Laws dating back to the 19th and 20th century <sup>(71)</sup> underpin the present day apprenticeship/industrial training and school-based VET sectors. In the social memory, attitudes regarding VET are ambivalent due to its association with socioeconomic disadvantage; although VET enabled many to gain jobs and attain higher social status, in the pre-1990s depressed economy, large numbers of VET graduates were unemployed or had to emigrate.

The nationwide vocational education committees (VEC) manage vocational and further education schools and, until 1992, the regional technical colleges, upgraded to institutes of technology (IoT) in 2006. The former coexist with privately-owned secondary schools and the latter with universities. VEC schools were set up to widen access to post-primary education, particularly for the children of workers, few of whom made the transition to second-level schools that were fee-paying. Vocational schools initially had a curriculum equally divided between manual work practice <sup>(72)</sup> and educational subjects. The introduction of free secondary education in 1967 led to the extension of State-prescribed, academically-orientated secondary school curricula and public examinations to vocational schools. In the 1980s, vocationally-oriented programmes were introduced at upper second-level for all school types: these were the leaving certificate vocational (1989) and leaving certificate applied (1995) programmes. The take up rate of these programmes is higher in vocational than in secondary schools. The leaving certificate vocational is on the same qualification level (NFQ) as the traditional academic leaving certificate, although twice as many pupils opt for the latter. Despite offering the same programmes, vocational schools are less diversely socially stratified than secondary schools <sup>(73)</sup> and the 'dropout' rate is higher and success rates lower, even though the gap is diminishing.

Historically, regional technical colleges played a key role in VET provision. With their upgrading (institutes of technology) and inclusion in the higher

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<sup>(71)</sup> The 1899 Agriculture and Technical Instruction Act. The Vocational Education Act (1930) that established the VEC. The 1967 Industrial Training Act that set up the Industrial Training Authority replaced by FÁS in 1988.

<sup>(72)</sup> Vocational schools initially provided the educational dimension to apprenticeship training that later mostly transferred to the regional technical colleges (institutes of technology).

<sup>(73)</sup> Although most privately-owned secondary schools are largely State-funded and free of fees, parents' voluntary contributions resource school-building improvements, facilities and equipment that enhance the attractiveness of these schools; there is less evidence of this in vocational schools. Wealthier parents also often opt for private and expensive tutorials (grinds) for their children that help to maintain both retention and higher examination success rates; both rates are lower in vocational schools.

education sector, their provision, including VET programmes at pre-undergraduate qualification level, is defined as higher education; this raises its attractiveness, and the status of respective learners (classified as higher education students). Historic links between vocational schools and the institutes of technology remain strong, with student transition rates to the institutes of technology more prevalent than to universities (the main destination of secondary school graduates).

The State training and employment Authority (FÁS), is responsible for apprenticeship, an attractive VET pathway favoured by males. The off-the-job education phases of the four-year standards-based apprenticeship programme are primarily provided by the institutes of technology, now higher education institutions. FÁS provides a range of IVET options, such as traineeships, through its nationwide network of training centres in which it also provides training/re-training for workers and the unemployed. FÁS Centres can be associated both with attractive and desired VET programmes as well as being referral centres for the unemployed, which can lead to mixed perceptions of attractiveness. FÁS is the second biggest further education and training (FET) provider after the VEC.

With the establishment of the statutory FET Award Council (FETAC) <sup>(74)</sup>, the term ‘further education and training’ (FET) entered the system vocabulary. FET comprises all provision and qualifications awarded outside general and higher education within the range of ISCED 1-4 (orientated to 5B). FET provision, managed by the VEC (the biggest FET provider) includes part- and full-time second-chance education with awards corresponding to the lower ISCED levels and the one-to-two-year full-time (ISCED 4) post-leaving certificate programmes (PLC) <sup>(75)</sup>, which were introduced in 1985. PLC participation rates have risen from 15 000 in 1991/02 to 38 500 in 2011. The PLC programme is a key progression route to higher education, especially in institutes of technology.

Additional to the vocational education centres and FÁS, other State Authorities responsible for specific economic sectors, private enterprises and the community-voluntary sectors provide further education and training.

The case studies below demonstrate the roles of the national framework of qualifications and the national skills strategy in reforms that aim, in particular, to improve the attractiveness of these FET awards and associated provision.

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<sup>(74)</sup> Qualifications (education and training) Act, 1999 (Government of Ireland, 1999).

<sup>(75)</sup> The ESRI refers to the capacity of PLCs to respond to emerging needs and their pioneering success in areas such as tele-services, e-commerce, music, animation, equestrian studies, and multimedia, as well as meeting more traditional needs (Watson et al., 2006).

#### **7.4.4. Case 1: the national framework of qualifications, improving the attractiveness and coherence of VET**

##### *7.4.4.1. Origins*

Consensus building on the need for, and purpose of, the national framework of qualifications (NFQ) began two decades ago. By the 1990s, the post-secondary level qualifications landscape had become large, heterogeneous and cumbersome <sup>(76)</sup>. Transparency and comparability of qualifications within and across sectors became a pressing issue. Lack of flexibility in the system militated against attempts by the private sector to gain recognition and certification for programmes. The National Council for Vocational Awards (1991) was set up to improve transparency and coherence within and across VET awards and a five-level framework was developed <sup>(77)</sup>. In 1995 the government set up a body (TEASTAS) to advise it on establishing a comprehensive qualifications framework and rationalisation of the numerous awards and awarding bodies <sup>(78)</sup>. In the 1999, the Qualifications (education and training) Act, the legislative base for the development of the NFQ, was adopted. After piloting and a nationwide consultation process, the NFQ was launched in 2003.

The central aim of the NFQ is to enable learners of all ages to gain recognition for acquired knowledge, skills and competences. This case study demonstrates the impact of the NFQ on VET in the FET sector, in terms of improving the attractiveness of provision and qualifications <sup>(79)</sup>.

##### *7.4.4.2. Description: the Irish framework of qualifications*

The NFQ covers all awards in the State and provides for 10 levels of qualification. Key objectives are to promote access, transfer and progression for learners to

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<sup>(76)</sup> Systems for VET and higher education were operating in parallel with new community-based and employer led VET and a growing tertiary-level sector emerging from the VET sector. As regional technical colleges upgraded they began offering programmes at degree and post graduate levels, initially in partnership with universities. The UK qualifications awarded in VET increased the complexity of the system.

<sup>(77)</sup> Developments progressed in consultation with other awarding bodies in the sector, mainly FÁS and State agencies for tourism and hospitality (CERT/Failte Ireland), agriculture (Teagasc) and fisheries (BIM).

<sup>(78)</sup> At that time, the responsible awarding bodies were: the DES with the State Examinations Commission for second-level schools; Universities and the NCEA (1979) operational since 1972 for tertiary-level non-university sector, primarily regional technical colleges. Myriad awarding bodies, national and non-national, catered for the VET sector including NCVA and FÁS.

<sup>(79)</sup> FET covers more than VET (provision related to awards at NFQ levels 1-4). FETAC and HETAC share awards at NFQ 6.

higher levels of qualification, to enable credits to be accumulated towards awards, and to provide mechanisms for recognition of prior learning. Using Raffe's taxonomy, the NFQ can be described as a reforming framework that has a statutory and regulatory role, as it 'takes the existing system as its starting point but aims to improve it, for example by enhancing quality, increasing consistency, filling gaps in provision or increasing accountability' (Raffe, 2009, p. 3). The Irish NFQ was the first framework to be referenced to the EQF in 2009.

The NFQ aids measurement of learning achievements and thereby the relationship between all education and training awards, resulting in a 'levels of qualification' approach operating alongside the traditional sectoral divides. The NFQ increases the attractiveness of VET qualifications by valuing the associated learning outcomes in a way comparable with general and higher education. Thus, a general education award may be placed at the same level as a VET award and a VET award at the same level as a higher education award; this increases parity of esteem for learning attainment, with different balances of acquired knowledge, skills and competence. The levels of qualification approach both reshapes and blurs the distinction between traditional sectors. VET awards oriented towards professions have become aligned with the higher education sector and those oriented to occupations and social integration have become aligned with the FET sector (see Section 3.2.3.).

The NFQ is based on learning achievements that can be validated according to standards of knowledge, skill and competence<sup>(80)</sup> regardless of where and how they have been acquired. It makes provision for recognition of all learning through major awards<sup>(81)</sup> and a range of smaller award types; it also caters for the recognition of awards made by bodies outside Ireland. Major awards are full qualifications and a national certificate is issued on attainment. Minor awards are derived from/linked to major awards and provide recognition of learning achievement that is not the full combination for a major award; they have their own relevance and, in the right combination, can be accumulated towards a major award. Component certificates are issued on attainment of one/more minor awards. Supplemental awards recognise learning achievement that is additional to a full qualification (skills updating and professional development). Special purpose awards recognise learning achievement that is responsive to a narrow, specific need and do not have to be derived from/linked to major awards.

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<sup>(80)</sup> The subdivision of knowledge, skills and competence into kind, breadth and depth, facilitates more precise distinctions between awards within levels.

<sup>(81)</sup> There are currently 16 major awards in the NFQ.

Table 10. The Irish national framework of qualifications (NFQ)

NFQ	EQF	Major awards	Main providers	Awarding body (June 2012)
1	1	1. Level one certificate	FET providers, primarily VEC	FETAC
2	1	2. Level two certificate	FET providers, primarily VEC	FETAC
3	2	3. Junior certificate 4. Level three certificate	<ul style="list-style-type: none"> <li>• General education schools</li> <li>• FET providers</li> </ul>	<ul style="list-style-type: none"> <li>• State examination Commission</li> <li>• FETAC</li> </ul>
4	3	5. Leaving applied certificate 6. Level four certificate	<ul style="list-style-type: none"> <li>• General education schools</li> <li>• FET providers</li> </ul>	<ul style="list-style-type: none"> <li>• State examination Commission</li> <li>• FETAC</li> </ul>
5	4	7. Leaving certificate and leaving vocational certificate 8. Level five certificate	General education schools FET providers	<ul style="list-style-type: none"> <li>• State examination Commission</li> <li>• State Examination Commission</li> <li>• FETAC</li> </ul>
6	5	9. Advanced certificate 10. Higher certificate	FET and HET providers (HEIs)	<ul style="list-style-type: none"> <li>• FETAC</li> <li>• HETAC and HEIs</li> </ul>
7	6	11. Ordinary bachelor degree	HET providers (HEIs)	<ul style="list-style-type: none"> <li>• Tertiary institutions (HEIs)</li> <li>• HETAC</li> </ul>
8	6	12. Honours bachelor 13. Higher diploma	HET providers (HEIs)	<ul style="list-style-type: none"> <li>• Tertiary institutions(HEIs)</li> <li>• HETAC</li> </ul>
9	7	14. Master degree and 15. Post graduate diploma	HET providers (HEIs)	<ul style="list-style-type: none"> <li>• Tertiary institutions (HEIs)</li> <li>• HETAC</li> </ul>
10	8	16. Doctor degree and post doctor degree	HET providers (HEIs)	<ul style="list-style-type: none"> <li>• Tertiary institutions (HEIs)</li> <li>• HETAC</li> </ul>

NB: HET= higher education and training; HETAC = higher education and training awards council.

Source: Adapted from the National Qualification Authority of Ireland (NQAI) website: [http://www.nfq.ie/nfq/en/FanDiagram/nqai\\_nfq\\_08.html](http://www.nfq.ie/nfq/en/FanDiagram/nqai_nfq_08.html) [accessed 21.8.2013].

#### 7.4.4.3. Tools

The NFQ has its legislative base in the *Qualifications (education and training) Act 1999* (Government of Ireland, 1999). All provisions in the act are therefore mandatory and stakeholders must comply with them. The Qualifications Act is directive in relation to the further and the higher (non-university) education and training sectors. The FET Awards Councils (FETAC) were mandated to develop the related award standards of knowledge, skills and competence to be acquired by learners.

FETAC has introduced the following NFQ tools and system changes in the FET sector <sup>(82)</sup> (Section 3.2.3):

- (a) the quality assurance framework (FETAC, 20010): common quality assurance system for all FET providers introduced in 2008 <sup>(83)</sup>. FETAC monitors and evaluates providers every five-years, and manages the 'authentication of assessment' process;
- (b) the common awards system (CAS) (FETAC, 2011): applied to all new FETAC awards since 2008 with the aim of including all existing FET awards by 2014. Providers are also expected to have in place appropriate mechanisms to support access, transfer and progression. The CAS is also a credit accumulation and transfer system (CATS) consistent with ECVET. It is enabled by the migration project, which opened access to all awards by registered providers;
- (c) the higher education links scheme (HELs) <sup>(84)</sup>: was introduced in 1996 to aid FET graduate (NFQ 5-6) access to higher education via the Central Applications Office (CAO) <sup>(85)</sup>. The scheme links specific FETAC qualifications with reserved places in 40 higher education institutes (HEIs), easing transition; this also applies to qualified apprentices. Some of these institutes also operate an admissions scheme for non-specific FETAC (NFQ 5-6) graduates. Between 2008 and 2011 the number of CAO applicants presenting with FETAC awards almost doubled from 7 244 to 14 066;
- (d) recognition of prior learning <sup>(86)</sup>: in keeping with statutory requirements, FETAC registered providers must help learners with valid prior learning, for example through exemptions from some programme requirements.

These tools support greater transparency and coherence in FET and, as similar tools exist in higher education and training, improve trust and comparability across the sectors. FETAC's (FETAC, 2008, p. 30) promotional activities have been very successful and awareness of the FETAC brand is high. FET comprises hundreds of provider types, of great diversity and geographically widely dispersed,

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<sup>(82)</sup> Initially, to aid a pragmatic approach to referencing existing qualifications to the NFQ and a smooth transition to the new awards system, FETAC worked with the processes and procedures of the former award bodies.

<sup>(83)</sup> FETAC quality assurance policy is consistent with EQAVET. Ireland hosted the ENQA-VET the Secretariat for EQAVET in FETAC.

<sup>(84)</sup> <http://www.fetac.ie/fetac/learners/hels/hels.htm> [accessed 22.8.2013].

<sup>(85)</sup> Higher education institutes, while retaining decision-making on admissions, have delegated the task of processing first-year undergraduate applications to the Central Applications Office, <http://www.cao.ie> [accessed 26.8.2013].

<sup>(86)</sup> <http://www.fetac.ie/fetac/learners/rpl/rpl.htm> [accessed 22.8.2013].

that have much to gain from association with the FETAC brand in terms of improved image and status.

#### 7.4.4.4. *Improving the attractiveness of further education and training*

##### **Coherent quality assurance and more reliable awards**

The NFQ influences quality assurance in programme design and validation, and match with award-level, assessment and the achievement of learning outcomes. Providers have primary responsibility for quality assurance and, by law, their procedures must be approved by FETAC <sup>(87)</sup>. FETAC's role is to validate, monitor and evaluate programmes <sup>(88)</sup> and the effectiveness of their quality assurance procedures.

##### **Improved transparency**

NFQ design aims to make FET qualifications more transparent and easier to understand. The NFQ 10 indicators of level are differentiated on the basis of standards of knowledge (substrands: knowledge breadth; knowledge kind), skill (substrands: know-how and skill range; know-how and skill selectivity) and competence (substrands: competence context and role; learning to learn and insight). For each substrand at each level there is an indicator that is a general description of expected learning outcomes. This classification system is used to relate existing and new awards to the framework and make progression pathways visible. As this language is used throughout the continuum of learning, higher education institutions can make more informed judgements on learning outcomes attained by FET graduates and their capacities for higher education. Using the same language to advertise offers improves guidance specialist capacity to promote them and learner capacity to make suitable choices that include having a perspective on future learning opportunities. 'Hundreds of courses, one award', the catch-phrase in the FETAC marketing campaign, relates to the improved consistency, transparency and comparability of FET awards.

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<sup>(87)</sup> *Quality assurance for provider*. <http://www.fetac.ie/fetac/providers/tools/qa.htm> [accessed 22.8.2013].

<sup>(88)</sup> When the programme leads to a major award, detailed descriptors of all the component modules, including: expected outcomes and assessment processes, must be provided: scope; personnel involved; rationale; programme framer; delivery framer, programme structure; assessment scheduler; learner support identifier; programme module objective developer; programme module content developer; learning strand and delivery strategy/learning activities mapper. Validation has five-phases: submission, evaluation, decision, appeal and review.

### **Greater flexibility of provision and award attainment**

The introduction of smaller award types (minor, special purpose and supplemental) and their coherence with major awards (full qualifications), supports incremental learning. Qualifications can be updated and upgraded by acquiring additional awards. Trust in the award, as opposed to the location/context of learning, frees the learner to choose where and how to acquire the required knowledge, skills and competences associated with an award; this freedom is further increased by the choice offered by modularisation and credits.

### **Greater labour market relevance and currency**

Labour market actor participation in developing profiles and standards, crucial for their relevance, is supported by more 'detached' awards and lucid concepts of learning outcomes and their attainment and measurement. Labour market justification must be given for the publicly-funded post-leaving certificate (FET) programmes.

### **More autonomous learners**

The aim of increasing learner awareness of the intended outcomes of a learning process is to aid decision-making, autonomy, self-motivation and self-evaluation. The NFQ shifts the emphasis from 'where' learning takes place (institutions) to 'what' has been learned. This helps to broaden choice of learning contexts, support different learner needs, styles and pace, and to combat learner stereotyping.

### **Greater equity**

NFQ reforms seek greater egalitarianism in access to certificated learning throughout life. Initiatives, such as the higher education links scheme (HELs), improve progression opportunities for FET graduates.

### **Improved image and status**

'Detaching' awards from training providers helps to erode institutional stereotyping. A new and attractive FET brand has been developed; being part of a larger collective with an increasingly strong and respected identity raises the status of FET institutions.

### **International dimension**

International practice informed the development of the NFQ and international peer-learning guarantees that its continuous improvement incorporates leading edge processes and procedures that ensure the international currency of Irish qualifications and the recognition of non-nationals' qualifications.

#### 7.4.4.5. *Target groups and behaviour change*

The NFQ supports the long-term goal of reforming all qualifications. Primary target groups are education (all sectors), labour market and 'civil society' stakeholders involved in identifying qualification needs, development of qualifications standards, awarding of qualifications and provision of programmes leading to qualifications. Also included are qualifications-related stakeholders, *inter alia*, in the fields of personnel professional development and quality assurance, as well as information and guidance. The end target group is all individuals engaged in learning that leads to an NFQ award. The Qualifications Act makes provision for extensive consultation with all stakeholders at all levels of development.

By the early 1990s, VET expansion had led to petitioning by VET stakeholders for qualifications reform. Involvement in internationally directed action on VET development opened Irish stakeholder access to research and good examples of practice. In parallel, government had adopted the principles of social partnership. The emphasis on improving the labour market relevance of qualifications, coupled with deliberative and democratic cooperation, consultation, negotiation and agreement processes, provided perfect conditions for gauging stakeholder viewpoints on the type and extent of reform and national capacities to inform, manage and execute what would inevitably be a protracted and contentious process. Government's formal engagement with stakeholders, bilaterally and multilaterally, strengthens and sustains stakeholders' ownership of the framework and is key to dismantling sector barriers and nurturing mutual understanding and trust.

The NFQ is enabling the development of a learner-centred system that supports lifelong learning; this requires a quantum shift in systems thinking. The process of modifying self-contained subsystems of tradition into an evolving coordinated and coherent lifelong learning system is based on jointly agreed aims, underpinned by shared values, beliefs, interests and information and a commitment to cooperate. NFQ development and implementation demands radical change in behaviour from all players at all levels, to attain appropriate balances between autonomy and direction, self-sufficiency and inter-connectivity, responsibility and accountability, flexibility and reliability, and stability and innovation.

#### **Changing governance culture**

The NFQ is championed, steered and resourced by central Government and managed at a meta-governance level by public agencies in collaboration with stakeholders. NFQ governance practice aims to balance governing needs and capabilities through a combination of joint arrangements for decision-making and accountability with public, private and community partners. It requires mechanisms

that enable discreet government control of matters: the responsiveness of the qualifications' system to changing social and economic needs; the efficient and effective investment of public funds for best returns; and the regulation of heterogeneous, and increasingly autonomous, stakeholders linked to the qualifications system. Government is applying a more uniform governance approach across education and training; in the past its role in the VET system was more differentiated than its role in general and higher education (Section 3.2).

### **Changing provision culture**

NFQ-related reforms introduced to improve the coherence of VET are having a significant impact on the previous diverse and distinctive cultures of provider institutions in VET subsystems, with their different histories, legislative bases, governance and organisation. 'The NFQ has had a significant impact on the culture within Irish further education and training. The NFQ has fostered a shared understanding and language around certification, qualification and levels' (NALA, 2008, p. 4). Programmes leading to NFQ awards are based on learning outcomes. Although this approach is not new to VET, it is often more associated with VET pathways that are occupationally-specific and have a long tradition of integrated work-based learning, such as apprenticeships. Adapting to the learning outcomes approach in school-based VET often requires a paradigm shift in behaviour when teachers need to revise their roles, relationships and practice. More emphasis is placed on cooperation with labour market actors and interaction with enterprises and institutional self-evaluation, review and reporting.

### **Changing learning culture**

Government and its agencies have made it apparent that the NFQ represents a commitment to learners that all learning is valued and there are no dead-end qualifications. Learner rights are guaranteed and protected. The NFQ supports learner choice by making programmes and the qualifications they lead to more transparent. Decision-making on how learners can accumulate awards accommodates their personal circumstances as they can choose when, where and how they will acquire skills and have them validated.

#### *7.4.4.6. NFQ effectiveness*

The NFQ contributes to improving VET attractiveness by improving the intrinsic quality and relevance of provision so that awards are more highly valued by employers. Explicit quality assurance and the transparency of awards contribute to trust-building that aids, *inter alia*, learner progression to advanced VET and higher education. The NFQ is also effective in enhancing the status of VET providers,

programmes and learners, as seen from data on increased participation, attainment and progression rates (case study 2).

The NQAI commissioned an international study team to assess the impact of the NFQ from 2003 to 2008 <sup>(89)</sup>. The team's report published in 2009 (NQAI, 2009) contains many recommendations (referenced throughout this study) and 19 recommendations for the further development of the NFQ. Two issues were given priority for action in the FET sector: to review the appropriateness of including all craft awards at the same level (NFQ 6) and the collocation of FET and higher education awards at NFQ 6. The framework executives group is charged with undertaking a deeper analysis of the aptness of collocating awards at NFQ 6 (NQAI, 2010). Another outcome was the finding that FET programmes, that are manual/technical-oriented and/or closely linked with industry and/or lead to awards that are effectively 'licences to practice' or involve adherence to directives, do not adjust easily to NFQ policies <sup>(90)</sup>. Findings also included continued incompatibilities between FET and the higher education sector in various areas: concepts and use of learning outcomes; quality assurance systems; credit systems and recognition of prior learning conventions. The introduction of the credit system for FET was challenged by the need to be coherent with the higher education credit system. Links between credit and learning outcomes have proved difficult to articulate across the two sectors with repercussions for the transfer of credit. The supply side of processes for recognising prior learning was evaluated as limited, expensive, opaque, inconsistent (different weightings applied), and exacerbated by the finding that awards made through recognition of prior learning were not always accepted by higher education institutions and employers, indicating the need for a system-wide approach to recognition of prior learning and capacity building.

#### **7.4.5. Case 2: the national skills strategy**

Whereas the NFQ case study focuses on its use of the instrument in improving the quality, relevance and status of VET provision and qualifications, the second case study focuses on national planning. This aims to ensure that skills needed in the labour market are matched with sufficient numbers of suitably qualified individuals, and demonstrates how the flow of labour market data can improve the relevance of VET provision and decision-making capacities for career planning. This case

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<sup>(89)</sup> The NQAI had produced a background paper for the team with submissions on the implementation and impact of the NFQ from the sectors, including FET. The NQAI had also conducted a quality review of FETAC. These reports contain information on increasing attractiveness.

<sup>(90)</sup> FÁS submission to the impact study.

study examines how the skills strategy is interlinked with the NFQ to improve the relevance and image of VET related occupations and qualifications.

#### 7.4.5.1. *Origins*

The speed of economic growth, the need to ensure the right supply of skills and labour and to demonstrate human resources to foreign investors, and the limitations of data on real skills in the population, prompted the development of the national skills strategy (NSS), initially to address skills and labour shortages. As the economy changed rapidly in the 1990s, government made best use of existing available instruments and structures to identify and respond to labour market needs, including the capacities of State agencies and social partnership arrangements. In 1997, the government established a business education and training partnership (BETP) to address future skills needs in Ireland's tightening labour market. The expert group on future skills needs (EGFSN) is part of the partnership and includes representatives of businesses and employees, education sectors, government departments and State agencies <sup>(91)</sup>.

In 2005, the government requested the expert group to develop a national skills strategy in accordance with social cohesion policies. A multi-actor governance and management structure underpinned by strong research capacity supports the strategy. The expert group is financially supported by the national training fund <sup>(92)</sup>.

In the national development plan 2007-13 <sup>(93)</sup> global budget of EUR 25.8 billion, EUR 7.7 billion was earmarked for upskilling the workforce (EUR 2.8 billion) and the activation and participation of people outside the workforce (EUR 4.9 billion). The first covers provision for school-leavers' progression into the workforce: the apprenticeship system, training for people in employment and upskilling/reskilling workers affected by industrial restructuring. The plans were endorsed in the social partnership agreement *Towards 2016*. One year later (2008), as a result of the financial crisis, plans were reviewed to take account of the need to reprioritise public expenditure.

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<sup>(91)</sup> Forfás (the policy advisory board for enterprise, trade, science and technology) and FÁS provide research and secretariat support.

<sup>(92)</sup> The fund, (2000 National Training Fund Act) resourced through a levy on employers equal to 0.7% of their pay related social insurance (PRSI) contributions in respect of certain classes of employment offset by a comparable cut in employers. PRSI, supports a range of employment training initiatives including apprenticeship, traineeship, company-based training and training for the unemployed.

<sup>(93)</sup> [http://www.agriculture.gov.ie/ndp\\_state\\_aid/](http://www.agriculture.gov.ie/ndp_state_aid/) [accessed 21.10.2013].

Although the national skills strategy was developed in different economic circumstances and based on assumptions that are now out of date, the instrument serves an important purpose in planning for Ireland's recovery.

#### 7.4.5.2. *Description: the national skills strategy*

The fifth major report of the expert group on future skills needs *Tomorrow's skills: towards a national skills strategy* (EGFSN, 2007) introduced the national skills strategy (NSS). The aim of the NSS is to sustain and increase investment in education and training for innovation and productivity growth with the social dividend of inclusion and cohesion. It serves as a vision for economic development and involves key stakeholders in a monitoring process that supports partnership and cooperation at different levels. Raising the qualifications of the working population by one level (one-step-up) is the core of the NSS. Aligning the one-step-up strategy to the NFQ aids data gathering in relation to targets.

Table 11. **Skills profile of the labour force grouped by NFQ level**

NFQ level/ people	Skills profile 2005	Skills profile 2020 with no policy change to supply	2020 baseline demand for skills	Vision of skills profile 2020
NFQ 8-10	20%	28%	29%	32%
NFQ 6-7	12%	10%	16%	16%
NFQ 4-5	40%	44%	38%	45%
NFQ 1-3	28%	18%	17%	7%
People	1 929 200	2 401 000	2 337 000	2 431 000

Source: EGFSN (2007, p. 12).

In 2007, the Irish workforce was predicted to grow to 2.4 million by 2020; as 1.4 million of those at work in 2007 would still be in employment, at least 950 000 new workers would be required. To attain NSS goals, the percentage of workers qualified at NFQ 6-10 would need to increase. Targets set to achieve 2020 goals include increasing the upper second-level retention rate to over 90%, raising third-level participation from 55% to 72%, and augmenting the qualifications of half a million people in the labour force. In this, 70 000 would need to attain full qualifications at NFQ 3, 260 000 at NFQ 4-5 and 170 000 at NFQ 6-10.

A mechanism was put in place to coordinate the activities of all stakeholders<sup>(94)</sup> in implementing the strategy. Key elements included:

<sup>(94)</sup> Government and State agencies, social partners, area development management partnerships and providers including universities, institutes of technology, vocational education committees, FÁS, and other agencies.

- (a) systematic identification of the needs of individuals and enterprises, and timely relevant flows of information;
- (b) flexible and responsive training provision;
- (c) a high profile media awareness campaign;
- (d) an accreditation/quality assurance system;
- (e) adequate funding.

In 2007 the NSS focus was on the upskilling of those in work. By 2008 year end, the focus had begun to shift: maintaining and/or adapting the skills sets of the newly unemployed or those threatened with redundancy; aiding the attainment of initial qualifications by those affected by company closures (including apprentices<sup>(95)</sup>) but also young people who had 'dropped out' due to attractive job offers); and matching new and future labour market needs with provision for initial skills development. Since 2008 the total number in employment has fallen from 2.1 million to 1.8 million and unemployment has almost trebled. For the latter, responsibility for meeting the goals of the 'one-step-up' strategy has shifted from employers to the State and education and training providers, with the FET sector playing a key role.

Over the past five years, the NSS has helped to maintain strong multi-actor partnerships (particularly important since the collapse of social partnership) and support the maintenance of an evidence base for labour market and education policy and the efficient use of public funds, career planning and company recruitment.

#### 7.4.5.3. *Tools*

The NSS comprises:

- (a) a national skills database<sup>(96)</sup> (NSD) developed in 2003 as an electronic storehouse for data on skills demand and supply providing a platform for timely labour market analysis and forecasting at occupational level<sup>(97)</sup>. The NSD comprises data on employment and employment permits, education and training provision, destination of graduates, job vacancies and jobseekers.

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<sup>(95)</sup> The domino effect of the recession on the VET system was immediate in some sectors. One example was construction: the termination of relatively high numbers of craft apprenticeships contracts as enterprises closed down had a direct impact on apprenticeship training and on programmes in sectors linked to the construction industry, such as legal, finance, architecture, engineering, auctioneering, interior design.

<sup>(96)</sup> <http://www.fas.ie/en/About+Us/Publications+and+Resources/National+Skills+Database.htm> [accessed 22.8.2013].

<sup>(97)</sup> The occupational employment forecasting model was included in the database in 2010.

Since 2010 the NSD has included an occupational employment forecasting model. Forecast data are used to inform research and policy planning and information sources for a wide and varied public.

- (b) various research outputs: *National skills bulletin* <sup>(98)</sup>, providing data on the labour market at occupation level; *Monitoring Ireland's skills supply: trends in education/training outputs* <sup>(99)</sup>, examining outflows from the education and training system and indicating the supply of skills for the labour market; *Vacancy overview* <sup>(100)</sup>, analysing labour demand, measured by trends in advertised job vacancies; *Future skills needs reports* <sup>(101)</sup>, sector-specific and related research and analyses.

The NSS responds dynamically to the collected data that include skills shortages and job vacancies and changes in profiles of the employed/unemployed. Information is used for decision-making on public funding allocations for education and training provision that is responsive to priority needs. Data are used by providers to identify target groups and sectors for education and training offers and to tailor offers to meet both sets of needs in terms of contents and delivery methods. Vacancy data prompt labour market activation measures. Data are also used by career guidance professionals, services and tools that include the careers portal <sup>(102)</sup>, career directions <sup>(103)</sup>, and Qualifax, the national learners' database <sup>(104)</sup>.

#### 7.4.5.4. Effectiveness of the national skills strategy

The NFQ levels linked to IVET qualifications are at NFQ 4-5 (upper-second and post upper-second, general education and FET) and 6 (post upper-second FET

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<sup>(98)</sup> <http://www.skillsireland.ie/publication/egfsnSearch.jsp?tp=SkillsBulletins> [accessed 22.8.2013]. The first report was published in 2005.

<sup>(99)</sup> The first report was published in 2006.  
<http://www.skillsireland.ie/publication/egfsnSearch.jsp?ft=/publications/2006/title,2957,en.php> [accessed 22.8.2013].

<sup>(100)</sup> In the FET sector (2011) vacancies exist for carers, catering staff, and security staff.

<sup>(101)</sup> 2011 sectors include green economy, biopharma-pharmachem, high-level ICT, food-beverage, wholesale and retail.

<sup>(102)</sup> <http://www.careersportal.ie/index.php> [accessed 22.8.2013].

<sup>(103)</sup> [http://www.careerdirections.ie/showarticle.aspx?article\\_id=516](http://www.careerdirections.ie/showarticle.aspx?article_id=516) [accessed 22.8.2013].

<sup>(104)</sup> <http://www.qualifax.ie/> [accessed 22.8.2013].

and tertiary HET) (Section 3.2.1.) <sup>(105)</sup>. Progress is being made towards the attainment of all NSS targets (EGFSN, 2012d).

Although the NFQ 4-5 rate remains the same, in absolute numbers there are almost 36 000 more people in the labour force at these levels than in 2005, the net effect of progression/retention improvement. The greatest challenge continues to be upgrading the qualifications of those at NFQ 1-3 in the labour market (employed and unemployed) to NFQ 4-5; this falls within the remit of the FET sector as well as its role in attaining targets at NFQ 4-5 and 6.

The national skills strategy contributes to making VET an attractive choice. During the economic boom, enrolments in full-time education and training increased steadily. The trend has continued with an increase in 20 to 24 year-olds enrolling in FET and higher education institutions, in which courses leading to NFQ VET-related qualifications are offered. Evidence is gathered (such as data which indicate that higher qualifications' levels attainment increases employment opportunities) and used to measure against NSS targets. The NFQ eliminates dead end qualifications and supports VET award-holders in gaining access to higher education programmes.

In 2010, about 27% of NFQ 4-5 awards were made to FET graduates and nearly 64% of NFQ 6 awards; of the latter, the remaining 36% were made to higher education graduates.

Table 12. **Summary of awards by NFQ levels in 2010**

NFQ level	1-2	3	4	5	6	7	8	9-10	Total
Junior Cert		56 000							56 000
Leaving Cert			58 000						58 000
FETAC (major)	450	2 600	1 370	20 500	6 830				31 750
Institutes (IoT)					2 760	6 860	8 650	2 010	20 280
Universities					1 170	1 870	17 090	13 960	34 090
Total	450	58 600	79 870		10 760	8 730	25 740	15 970	200 120

Source: EGFSN (2011, p. 9).

Since 2007 there has been an increase in FET major and minor awards, most notably in the latter indicating their attractiveness as a flexible means to build and update qualifications.

<sup>(105)</sup> This demonstrates the blurring of the distinctions between general education and VET; IVET and CVET; VET and HET.

Table 13. FETAC awards – Award holders 2007-11

Year	2007	2008	2009	2010	2011
Major	22 759	24 429	28 772	31 764	37 857 (*)
	22 689	24 429	28 772	31 764	37 857
Minor	176 321	177 228	268 680	303 507	284 597
	87 662	93 910	135 804	141 046	140 870
Special purpose	24 157	17 176	16 087	11 337	10 785
	20 290	17 176	16 087	11 337	10 785
Supplemental	456	717	1 281	1 327	946
	456	717	1 281	1 327	946
Total	223 693	219 550	314 820	348 005	334 185
	128 624	131 089	174 870	176 570	180 690

(\*) Disaggregated for 2011.

Source: FETAC data and EGFSN (2010).

In 2011, 40% of FETAC awards were achieved by individuals less than 30 years of age with an almost equal gender distribution. However, the age and gender profile of FET award-holders has changed. The share of awards to 15 to 29 year-olds has decreased, likely due to improved leaving certificate retention rates and progression to higher education, and there has been an increase in award holders aged 40+, due in part to unemployment. Awards made to male recipients have increased from NFQ 1 to 5 but decreased at NFQ 6, (from 67% in 2008 to 50% in 2010). In 2010, 71% of NFQ 6 major awards were made to male recipients (80% in 2009), the reduction due in part to the impact of the recession on construction and related apprenticeships. Craft awards fell by 21%.

The positioning of the VEC schools as the main FET provider type has strengthened and, in 2011, VEC awards increased to 46% of the total. Programmes in VECs accounted for 58% of FET major awards. Enrolments in VEC school-based post-leaving certificate (PLC) programmes have increased by 30% since 2008 and associated major awards at NFQ 5 increased to 65% of the total.

FÁS programmes are more reliant on industry and under challenge in the crisis, with the collapse of sectors and company closures. While apprenticeship enrolments have decreased dramatically, entry and completion rates for training-centre-based skills training programmes have increased (Tables 14 and 15).

Table 14. Numbers entering apprenticeships 2000-11

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
8 100	7 798	6 862	7 336	8 236	8 304	8 290	6 763	3 765	1 535	1 204	1 307

Source: FÁS (2012a, p. 33).

Table 15. Trends in FÁS throughput (selected programmes)

	2004	2005	2006	2007	2008	2009	2010	2011
Apprenticeship (*)	16 357	17 748	17 400	17 919	18 237	14 944	11 658	7 618
Skills training (including Traineeships)	8 861	8 882	8 253	7 699	7 929	18 579	24 989	16 902
Foundation skills	11 870	14 178	13 117	12 587	12 799	12 064	11 032	9 002

(\*) Includes all apprentices who completed phases 2, 4 or 6 of the seven-phase apprenticeship during the year.

Source: 2010 figures from FÁS (2011, p. 58). Extracted from:  
[http://www.fas.ie/en/PubDocs/AnnualReports/ANNUAL\\_REPORT09/appendix1b.htm](http://www.fas.ie/en/PubDocs/AnnualReports/ANNUAL_REPORT09/appendix1b.htm).

These data indicate that State-aided and controlled school-based VET may be more sustainable in times of economic crisis than VET that is reliant on work-based learning and direct involvement of enterprises. There may be merit in some trade-off between maintaining a high degree of VET relevance to provide VET offers to individuals, the number of whom expand in a recession, to ensure they acquire, maintain and upgrade their qualifications.

#### 7.4.5.5. Target groups and behaviour change

##### **Policy-makers: improving the quality of policy**

The mechanisms and outputs of the national skills strategy (NSS) have improved the evidence base; reliable and timely data enable policy-makers to make more informed decisions. The processes of the strategy reinforce relations between public and private and non-governmental interests that drive economic and social policies, with a bearing on VET. The recession has put social partnership under strain but the NSS is serving as a catalyst to maintain social dialogue critical for VET relevance and quality. NSS data have demonstrated that, with wide-scale company closures and companies under threat of closure, the responsibility for VET previously provided on-the-job by those companies needs to transfer, as relevant and appropriate, to the public sector. The recession has reinforced the need for a balance of public/private VET provision so that, when the involvement of enterprises is compromised, public provision can compensate. This also implies that in times of economic prosperity, the publicly-funded system must be continuously developed and adequately funded. Recent policy changes to improve the coherence, complementarity and quality of public provision include the transfer of the national training fund and responsibility for FÁS to the Department of Education and Skills and the introduction of a range of initiatives for on-the-job training that use public funds, such as JobBridge <sup>(106)</sup>. More large-scale reforms

<sup>(106)</sup> <http://www.jobbridge.ie/> [26.8.2013].

include establishing the new Further Education and Training Authority and the National Employment and Entitlements Service.

There is a strong correlation between economic performance as measured by GDP and GNP and the employment outcomes of training. Training can maximise employment potential but only within the limits of the availability of jobs. The NSS tools identify skills gaps/labour shortages and the policy implications. The vacancy overview 2011 highlights the increasing need for competence in several foreign languages across a range of occupational groups and that the newly qualified, particularly in ICT, possess specialised skills sets that are best acquired on-the-job, requiring the integration of quality work-based learning in school-based VET.

### **Employers: closer inter-connection with VET policy and practice**

The expert group on future skills needs (EGFSN) includes strong representation of economy stakeholders, including social partners, company representatives and Skillnets (company-led training networks) <sup>(107)</sup>. Structured and intensive collaboration with economy, research and education partners increases the capacities of enterprises to identify needs more precisely and contribute to skills development more efficiently. In particular, the interests of SMEs and their special needs are considered more effectively in the context of multi-actor partnership. Labour market demand for the provision of skills by publicly-funded providers is more focused and realistic as a result of dialogue and negotiation.

### **Providers: closer inter-connection with the labour market**

The NSS serves as a catalyst for systematic and frequent interaction between providers and enterprises and across providers in different education and training sectors. The recession has tested provider flexibility to adapt to changing circumstances while maintaining the relevance of programmes and the expertise and infra-structure to attract applicants (to replace skills in the labour market and prepare for an upswing in the economy) as sectors undergo image decline. Recently, Forfás (2012, p. 90) undertook research and prepared guidelines for the VEC sector to improve alignment between VET provision and labour market requirements. Advice included the need to:

- (a) collaborate more closely with enterprises and employment services on programme development;
- (b) extend quality work-based learning (in companies) to more VET programmes;
- (c) involve local stakeholders in monitoring the provision of regulation-required awards;

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<sup>(107)</sup> <http://www.skillnets.ie/> [accessed 26.8.2013].

- (d) improve data collection in relation to progression to employment and formal learning.

### **Career guidance specialists: supporting more informed choices**

The EGFSN includes representation of guidance counsellors and the NSS planning and outputs take account of the role of guidance and support the needs of counsellors. Career guidance provision is undergoing reform, especially in the public employment services with the introduction of the *Pathways to work* strategy (Government of Ireland, 2012b) under which the National Employment and Entitlements Service will be introduced. The education and career guidance service for the FET sector <sup>(108)</sup> plays an important role in complementing 'back to education' provision.

### **Media: transmitting timely messages**

NSS outputs include regular press releases and 'sound bites' for newspapers, television and radio that draw attention to improvements in the national skills base, the importance of formal qualifications, and the availability of jobs, the skills needed and how to acquire them.

### **Individuals: engaging in a culture of learning**

The NSS vacancy overview (2012) demonstrates that third level qualifications are a prerequisite for most jobs advertised in Ireland; this is reinforced by the much higher unemployment rates of those with VET (non-tertiary) and general education qualifications. This knowledge, together with the flexibility of FET and its increased connectivity, motivates individuals to acquire FET qualifications or top-up their general education qualifications to gain access to third level or to enhance their chances of being accepted for places on 'elite' third level programmes. FETAC level 5-6 award holders are eligible to apply for programmes at higher NFQ levels in higher education institutes through the Central Applications Office (CAO). In 2010, NSS data confirm that 14 000 (20%) of CAO applicants held FETAC awards as opposed to 8 100 (11%) in 2009 (EGFSN, 2011, p. 59). There was an increase of 9% during 2009-10 in CAO acceptances for NFQ 6 programmes in higher education institutes and an increase in progression rates to degree programmes, on attainment of level 6 awards.

Between 2000 and 2010 there was a notable increase in tertiary level attainment, including non-degree VET, in the labour force and a significant reduction in attainment levels at lower-second or less. This can be related to the

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<sup>(108)</sup> The adult education guidance initiative (AEGI) was set up in 2000.

attractiveness of minor FETAC awards as a means both to update skills and build up a major award (full qualification) over time.

Table 16. **Highest level of education attained for persons aged 15 to 64 (for 2020: targets)**

	Primary	Lower second	Upper second	Post upper second non-tertiary	Tertiary non-degree	Tertiary degrees and above
2000	21	23	25	12	8	11
2002	20	21	26	11	8	13
2004	17	21	27	9	9	16
2006	16	20	27	10	10	17
2008	14	20	27	10	10	19
2010	12	18	27	11	14	19
2020	5	14	29	15	10	28

Source: CSO (2010).

The NSS sector forecasts aid employers and sectoral associations to plan for their future work-force. A 2012 EGFSN report <sup>(109)</sup> analyses the current supply of courses and future training needs for sectors trading internationally; its recommendations mainly target the higher education sector but provision/awards are also needed at NFQ levels 5 and 6. The report provides an overview of current FETAC NFQ 5-6 awards that are responsive to the needs of the sector and recommends the development of applied tourism programmes for front-line staff of trade and tourism bodies in strategic business planning and risk management, marketing, selling, e-commerce, language learning and cultural awareness.

Interest is growing in the acquisition of NFQ awards through recognition of prior learning. In 2011, the report *Developing recognition of prior learning (RPL): the role of RPL in the context of the national skills strategy upskilling objectives* was published by the EGFSN. It considers the use of recognition of prior learning by providers and workplace representatives to attract individuals to upgrade their qualifications, suggesting that benefits outweigh the costs, and makes a series of recommendations for improving its implementation in Ireland. FETAC registered providers are obliged to have arrangements in place to support recognition of prior learning, although it is acknowledged that not all providers are in a position to do so.

NSS tools present findings on the changing profiles of VET programme participants that need to be catered for, sometimes through policy change and

<sup>(109)</sup> [http://www.skillsireland.ie/media/EGFSB22062012-Key\\_Skills\\_for\\_Enterprise\\_to\\_Trade\\_Internationally.pdf](http://www.skillsireland.ie/media/EGFSB22062012-Key_Skills_for_Enterprise_to_Trade_Internationally.pdf)

provision reorientation. The EGFSN (2012, p. 117) reports an increase of 35% in the number of adults (25+) participating in lifelong learning between 2006 and 2011. Of the 2011 total, more than half of the participants were unemployed or economically inactive.

In the VET context, as an example, according to the FÁS survey (2012), 81% of FÁS programme-participants were unemployed in 2011, almost double the 2007 rate (FÁS, 2012b). The survey also demonstrates that 26% of programme-participants already held VET qualifications at NFQ 5-6 as opposed to 9% in 2007. Making VET attractive for the more highly-qualified unemployed, who need access to VET to upskill and reskill, requires calibration of provision that does not negatively affect the accessibility of VET for the lower-qualified unemployed. FET continues to offer attractive re-entry routes for these persons through the Back to education initiative <sup>(110)</sup>, enabling them to progress to VET programmes and qualifications.

The NSS *National skills bulletin* (EGFSN, 2012c) notes that the rate of those with lower second level qualifications decreased to below 20% for the first time since tracking progress towards NSS targets. Between 2009 and 2011 there was a reduction in the proportion of 25 to 64 year-olds with, at most, primary education from 13% to 10% with a 6% reduction for those aged 55 to 64 (CSO, 2011, p. 4). Eurydice (DES, 2011, p. 165) cites the rate of progression to employment or to further education following VTOS and Youthreach course completion as 72%.

#### 7.4.5.6. *Wider outcomes and future plans*

Policy plans have been introduced and measures taken for significant reforms that have direct bearing on VET. With the transfer of the FÁS training function to the Department of Education and Skills, almost all education and training is now under centralised governance. Planning for the transfer of FÁS responsibilities for employment services to the new, integrated National Employment and Entitlements Service <sup>(111)</sup>, is near completion. New structures for the management

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<sup>(110)</sup> The Back to education initiative (BTEI) provides part-time courses for adults who have not attained an upper second-level qualification. BTEI is part of an integrated measure and serves as a bridge from adult literacy and community education to VET, a progression route for early school leavers and a re-entry route for those who wish to update/renew skills. 90% of BTEI places are allocated to statutory providers, primarily the VEC, and 10% to the community education sector. The target group aims primarily for awards at NFQ 3-6.

<sup>(111)</sup> A 'one-stop-shop' combining the processing of social welfare benefits (including education grants), job guidance, referral and training services under the adult education guidance initiative (AEGIS) of the Department of Social Protection. <http://www.joanburton.ie/economy-jobs-finance/national-employment-and-entitlements-service> [accessed 21.10.2013].

of VET will soon be in place: the dissolution of the 33 VECs and the integration and extension of their functions in 16 education and training boards that are soon to be established; the setting up of SOLAS (*Seirbhísí Oideachais Leanúnaigh agus Scileanna*)<sup>(112)</sup>, the new Further Education and Training Authority (pending legislation); and the dissolution of FÁS and the incorporation of its remaining functions in SOLAS and the training boards. In July 2011, the *Qualifications and quality assurance (education and training) bill*<sup>(113)</sup> setting up the Qualifications and Quality Assurance Authority of Ireland (QQAAI) was published<sup>(114)</sup> and is currently (August 2012) awaiting signature into law by the President of Ireland. The Bill dissolves the NQAI, FETAC and HETAC and their functions form part of the mandate given to the new Authority together with those of the Irish University Quality Board (2002). Amalgamation is expected to lead to improved coherence between the policies and practices that have developed differently in the FET and HET sectors, offering improved access and progression potential for learners. Including the functions of the University Quality Board ensures a more uniform approach to quality assurance across the further and higher education sectors, improving mutual trust.

#### **7.4.6. Conclusion**

The Ireland study presents advancements in education and training policy that aim to support learning throughout life, including integration of VET into general and higher education and the FET sectors. It demonstrates that the characteristics of VET, in terms of content, organisation and pedagogy, which make it an attractive choice for many individuals, can be retained while stigma associated with socioeconomic disadvantage can be dissipated. VET in further education and training in Ireland competes with VET in the higher education system, which is in the top 10 systems in the world. The upgrading of regional technical colleges to institutes of technology improves the image and status of VET provision therein; this includes the off-the-job education of apprentices, and of the respective VET learners who are classified as higher education students. Transition to higher education is at 65% and the 2020 target is 72%.

The study shows that upper-second level general education has been diversified by offering two additional pathways to support more technically and vocationally orientated pupils and thereby aiding their retention and progression to

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<sup>(112)</sup> <http://www.solas.ie/> [accessed 26.8.2013].

<sup>(113)</sup> <http://www.education.ie/en/Press-Events/Press-Releases/2011-Press-Releases/PR11-07-28.html> [accessed 21.10.2013].

<sup>(114)</sup> The government announced the proposed merger in 2008.

further and higher education. While all upper-second schools provide all pathways, vocational schools have lower retention, progression and attainment rates.

The study reveals the growth in enrolment in the emerging FET sector and the appeal of its flexible organisation for learners with different levels of attainment who are preparing for entry into the labour force, are already employed, or are seeking employment.

The study makes evident the reforming role of the NFQ and its positive impact on the coherence, quality and relevance of VET qualifications in terms of labour market currency and for progression to further learning. It makes clear that reform associated with NFQ goals will take considerable time for essential behaviour change. Some VET provision, for example more manual/technical-oriented programmes closely linked with industry and/or provision for VET awards that are effectively licences to practice or involve adherence to directives, may be resistant to change that is overly biased towards general and higher education. The study shows how the national skills strategy serves as a catalyst for cooperation between stakeholders; this provides timely evidence of the nations' skills base and labour market needs that enables informed policy choices and feeds into VET provision. Progress has been made towards achieving the 2020 targets in the NSS-related 'one-step-up' strategy. However, efforts still need to be made to increase the attractiveness of VET, in particular, for individuals with less than a school leaving certificate.

Table 17. **NFQ progress between 2005 and 2011; and 2020 targets**

	2005	2011	2020 targets
NFQ 6-10	32	41	48
NFQ 4-5	40	40	45
NFQ 1-3	28	19	7

(%)

The study also demonstrates that, by its very nature, VET is highly susceptible to the ebb and flow of economic change and this can radically affect its status and image at times. Globalised knowledge economies are prone to rapid and acute change, which can have a radical impact on the working lives of individuals, the durability of enterprises and national prosperity. The higher the labour market relevance of VET, the greater its susceptibility to economy shocks. To serve dynamic economies best, VET provision needs to be underpinned by effective strategic planning that commits education and labour market stakeholders to share responsibilities in the delivery of VET. The division of duties needs to be flexible. Companies that are no longer in business clearly cannot train apprentices and workers, so as economic circumstances change, stakeholders

must be prepared to play different roles in VET and to take on a greater or lesser share of responsibility. Stable, public provision of quality VET in Ireland has proved to be essential in times of economic downturn. The inter-connectedness of publicly-provided VET with general and higher education and labour market measures has permitted flexible provision, responsive to different needs. Individuals in rapidly changing economies require broad-based skills sets and lifelong learning competence to maintain their versatility and productivity. The study demonstrates that the public system is making efforts to ensure that learners' needs are met and that they are given support to navigate systems and provision and make suitable choices.

## 7.5. Czech Republic

### 7.5.1. Introduction

In 2008, the Czech Ministry of Education, Youth and Sports (MŠMT), adopted an action plan to support VET, with the aim of increasing participation. It comprised three key steps:

- (a) enhancing transferability within the VET system;
- (b) improving career counselling and the provision of information to the general public;
- (c) aiding cooperation between school and employers in terms of content, funding and implementation of VET, including providing incentives for this cooperation.

This has formed the basis for actions to improve the attractiveness of, and participation in, VET in the Czech Republic. This case study investigates two policies corresponding to the strategic steps laid out in this action plan.

The second strand of the action plan consists of two key, interconnected elements. The first is the improvement of guidance counselling in the country, which is still in process. However, the case study focuses on the other element of this strategy, which is the provision of information to, and raising awareness among, the general public in relation to VET through campaigns and other communication strategies. These actions are generally focused at regional level (Cedefop ReferNet Czech Republic, 2011), and one particular example is investigated: the city of Prague campaign to raise the social prestige of skilled manual work, crafts, and vocational training *Řemeslo Žije!* (Craft is alive!). This example demonstrates the role of action at local level within the context of a wider national strategy, and also is linked to the second case study in providing examples of collaboration with enterprises.

The other case focuses on the third strand of the action plan, which is to promote and aid the involvement of social partners in IVET provision, with a particular emphasis on engaging employers in providing workplace training. As with many new Member States, the involvement of social partners in IVET in the Czech Republic is low. Practical training is generally provided within schools. This has implications for attractiveness, both for students graduating from IVET to employers, since they have no, or little, practical experience in the workplace, and of IVET to students (NÚOV, 2008a; 2008b). This case study focuses on the implementation of the third point of the 2008 action plan at national level, with particular focus on incentives for employers to engage with IVET provision. It also considers local and regional efforts made to understand fully the policy landscape in this area.

## 7.5.2. Context

### 7.5.2.1. *High IVET participation*

Upper secondary vocational education in the Czech Republic is divided into two main pathways: a two- to three-year course leading to a vocational certificate, where a part of the examination is practical; and a four year course, leading to the *maturita* qualification, which is the prerequisite for entry to higher education. Secondary technical schools typically provide the four-year courses leading to *maturita* exams, preparing graduates to apply for higher education, or take on middle level technical employment positions (ISCED 3A); this qualification is at the same level as that provided through general upper secondary education. Secondary vocational schools typically offer the shorter qualification, entitling graduates to perform manual work and similar occupations (ISCED 3C), though they also prepare a small proportion of their graduates for the *maturita* exam. Although social partners are involved in curriculum development, their financial and practical involvement in vocational education is limited. Many students will not receive training in a specific enterprise (Cedefop Refernet Czech Republic, 2011). Participation levels in the vocational pathways are high, at 77.3% of all participating in upper secondary education at ISCED 3-4 in 2006 and 71.6% in 2009 <sup>(115)</sup>. This is the fourth highest level of participation among EU Member States.

However, according to the 2011 Cedefop Refernet Report, there is suggestion that some pathways, particularly those leading to a vocational certificate, rather than the *maturita*, are declining in attractiveness. Despite this,

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<sup>(115)</sup> Eurostat/UOE 2006 and 2009.

levels of IVET attractiveness relative to general upper secondary education are increasing according to Eurobarometer data. In 2004, only 18% of Eurobarometer survey respondents would recommend vocational education to a young person, compared to 38% recommending general education (European Commission, 2005). However, in 2011 the proportion recommending vocational education to a young person was the same as that recommending general education, at 41% (European Commission, 2011a). This represents an increase in the relative esteem indicator of 20 percentage points, and gives the Czech Republic an above-average level of relative esteem in 2011 (<sup>116</sup>).

There has also been a shift in the attractiveness of some sectors within vocational education. Crafts have become less attractive by comparison to other vocational pathways for several reasons. Although the Czech Republic is traditionally strong in these areas, after 1989 many people who had worked in these industries were made unemployed due to changes in the structure of industry ownership in the country. This has a significant impact on attractiveness. It may also be that employers did not offer attractive employment conditions in these fields. Over the past 10 years there have been increased efforts to address this decline in popularity in the crafts and *Řemeslo Žije!* (Craft is alive!) is one such initiative.

Also impacting on attractiveness might be the growth of unemployment among graduates of vocational programmes. This is in contrast to relatively low levels of unemployment among graduates of general upper secondary education.

Levels of employment also differ between sectors. The highest unemployment rates were in food and food chemistry (30.8%), manufacture of wood and manufacture of musical instruments (29.3%), agriculture and forestry (22.6%), personal care and services (22.0%), business in the fields of industries (21.7%) and technical chemistry and chemistry of silicates (21.7%). The lowest unemployment rates are in mining and metallurgy (5.7%), engineering (10.7%) and transport and communications (13.1%). Among graduates of secondary vocational education with leaving examination, the highest unemployment rates were in leather and footwear production, plastics processing (27.3%), manufacture of wood and manufacture of musical instruments (19.4%), printing, paper processing, film, photography (18.2%), textile and clothing industry (18.2%), ecology and environmental protection (16.9%), food and food chemistry (15.7%) and agriculture and forestry (15.6%). The lowest unemployment rates were in

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<sup>116</sup>) This is defined as the difference in percentage points between the percentage of the population recommending general education and the percentage recommending vocational education (European Commission, 2011a).

general training-Lyceum disciplines whose graduates usually continue their studies at colleges or universities (7.5%), special and interdisciplinary technical subjects (8.0%), personal care and services (8.1%), healthcare (8.2%), technical chemistry and chemistry of silicates (9.1%), engineering (10.2%) and electrical, telecommunications and computer science (10.5%).

#### 7.5.2.2. *Improving economic picture*

Of broader factors that might affect IVET outcomes and attractiveness <sup>(117)</sup>, it is evident that the economic picture is fairly positive. The Czech Republic is one of the lower-income countries which experienced particularly rapid growth corresponding to the overall growth seen in most countries in Europe in 2000-07. However, while most countries have experienced a recession and some decline in GDP from 2007 to 2010, the Czech Republic is one of the few which achieved real growth over this period, except for 2009. Nevertheless, some effects of the economic crisis are still evident, with a significant increase in youth unemployment (15-24 year-olds) between 2007 and 2010, although absolute levels of youth unemployment remain low (24.4%) compared to the EU average (32.1%). Public expenditure on education remains low relative to other Member States, but a high proportion is spent on vocational education at ISCED 3-4 (approximately 80% of total spend at ISCED 3-4) reflecting the high level of participation in IVET. So far, the economic downturn has not had any major impact on the uptake or availability of IVET training programmes, perhaps a reflection of the low level of involvement of social partners in IVET provision.

#### 7.5.2.3. *Mixed demographic and attainment picture*

The economic crisis has had a much less significant impact on IVET in the Czech Republic than demographic change and continuing education reforms. Demographically, the Czech Republic is ageing and it is expected that the old age dependency ratio will reach 54.8% by 2050, with a declining youth population. Most of the Czech population have upper secondary level education; in 2011, 71.1% of the population already had this level of educational attainment and the figure rises to 92% among those aged 20 to 24. Early education leaving rates are extremely low (4.9% in 2010, compared to an EU average of 13.9%) and falling. However, only 14.5% have tertiary level education in 2011, reflecting the high level of vocational secondary education in the country. The growth in popularity of the ISCED 3A vocational programmes, which give access to higher education relative to ISCED 3C programmes, may result in increasing participation at tertiary level.

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<sup>(117)</sup> Information drawn from Chapter 3 and Cedefop ReferNet Czech Republic (2011).

#### 7.5.2.4. *Historical context*

IVET has a long tradition in the Czech Republic but, under the communist regime, provision was largely centralised. Although training was connected with firms and employers, all of these were State-owned. The fall of communism in 1989 had profound implications for the IVET system in the country, which is only just beginning to be fully addressed. Most significant was the sudden and drastic changes in ownership both of firms and of education institutions. New groups, including private providers and the church, could found schools and develop their own curricula and areas of training. Firms also disengaged with IVET since they were completely restructuring, with new models of business and new ownership. Engagement with education was not a priority. This situation continued throughout the 1990s until the development of the new schools act, which started around 2000 in preparation for membership of the EU in 2004. As the Czech Republic prepared to join the EU, it largely took on board European recommendations on education from the lifelong learning strategy and started to rebuild the education system. The timing was good, because at this point employers had started to recognise some of the challenges they were facing in acquiring employees with the right skills and qualifications and were keen to reengage with education. Also, the 1990s had been a period of rapid growth, so both the State and employers were in a better position to address education needs financially. One key inspiration in terms of reengaging employers was the Scottish model of sector skills councils as a tool to bring people from different sectors together. Since 2005, 25 sector councils have been established in the Czech Republic, with the support of ESF funding, and it is now creating a national register of qualifications. Another element introduced was decentralisation of much of the responsibility for IVET provision, in line with the wider decentralisation of State administration adopted in 2003. Regional authorities are responsible for funding secondary technical and vocational education and so retain considerable autonomy over provision.

#### 7.5.3. **Case 1: Craft is alive! (*Remeslo Žije!*) project**

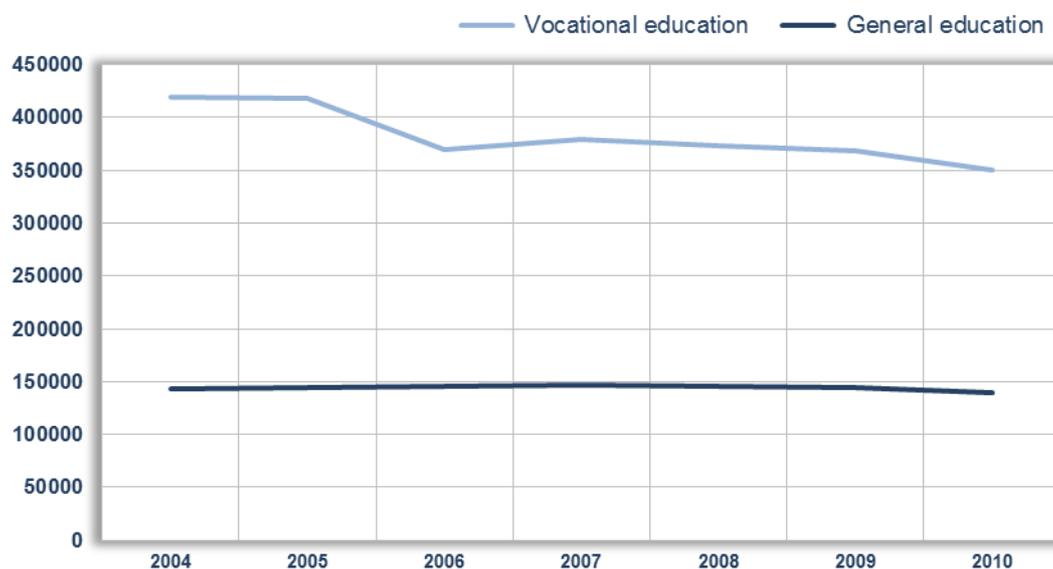
##### 7.5.3.1. *Description*

Communication strategies and awareness campaigns on IVET typically take place regionally, as with the Craft is alive! project. This was established in 2008 by the Prague City Hall and the Chamber of Commerce, city of Prague, in response to declining participation in apprenticeship-type vocational education, linked to demographic changes and declining interest in the craft disciplines among pupils in primary education. It also aims to address the declining levels of craftsmen in some professions, which leads to a vicious circle where they are replaced by

unskilled workers, and the gap between vocational education and the world of work grows due to lack of engagement of enterprises in IVET.

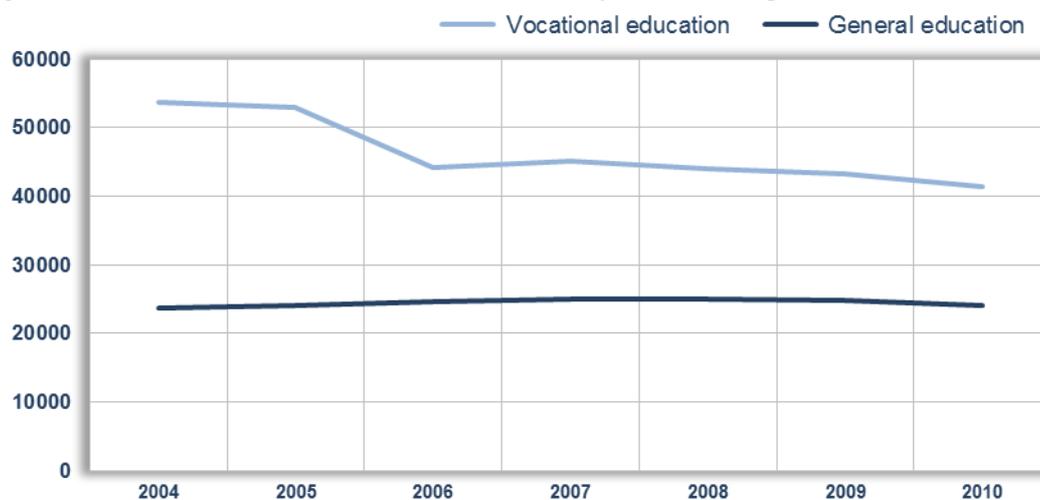
As shown in Figures 77 to 80, participation levels in vocational education have fallen, both in the Czech Republic as a whole and the Prague region in particular, over the past 10 years, while participation in general education has remained fairly constant. Similarly, the number of new entrants into vocational pathways has declined. However, this does not fully reflect the decline in apprenticeship-type training which has been in rapid decline for a longer period.

Figure 71. **Total number of students at secondary level in the Czech Republic**



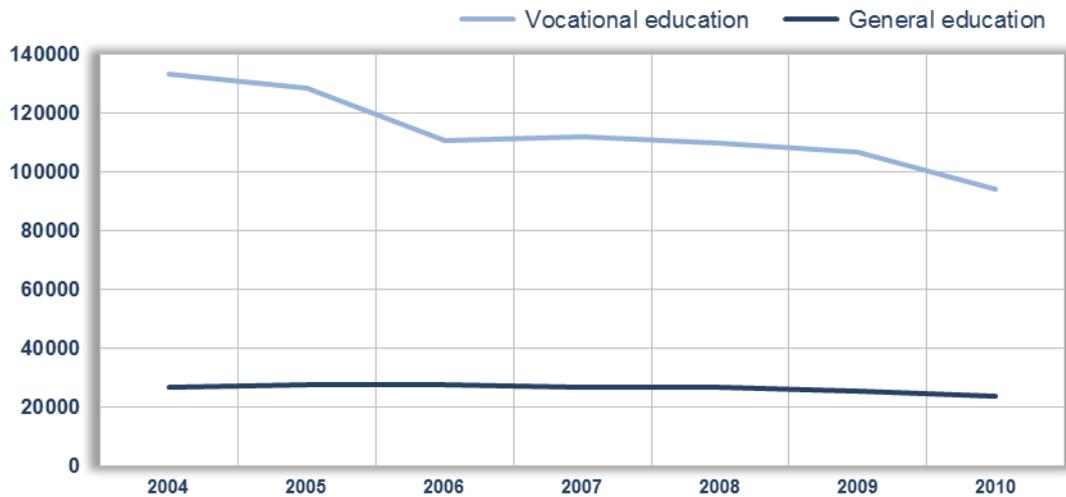
Source: *Education in your pocket*, MŠMT 2004-10. <http://www.msmt.cz/statistika-skolstvi/skolstvi-do-kapsy> [accessed 27.8.2013].

Figure 72. **Total number of students at secondary level in Prague**



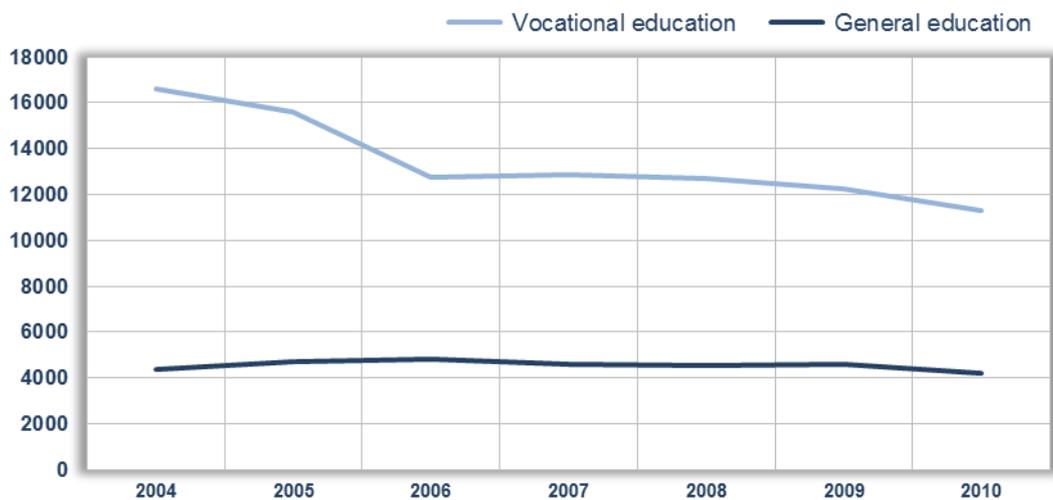
Source: *Education in your pocket*, MŠMT 2004-10. <http://www.msmt.cz/statistika-skolstvi/skolstvi-do-kapsy> [accessed 27.8.2013].

Figure 73. Total number of new entrants at secondary level in the Czech Republic



Source: *Education in your pocket*, MŠMT 2004-10. <http://www.msmt.cz/statistika-skolstvi/skolstvi-do-kapsy> [accessed 27.8.2013].

Figure 74. Total number of new entrants at secondary level in Prague



Source: *Education in your pocket*, MŠMT 2004-10. <http://www.msmt.cz/statistika-skolstvi/skolstvi-do-kapsy> [accessed 27.8.2013].

- The project is intended to run until 2013 and has two main goals <sup>(118)</sup>:
- (a) responsible choice of fields of education: all pupils leaving primary schools in Prague should consider vocational education as a real alternative and, subsequently, a career in the craft disciplines;

<sup>(118)</sup> <http://www.remeslozije.cz/o-projektu/vznik-projektu>

- (b) decisive role of enterprises in apprenticeship training: to involve enterprises, directly or indirectly, in the educational programmes of secondary schools to remove the gap between apprenticeship training and the world of work.

A series of operational objectives underlie the primary one:

- (a) achieve positive change in perceptions of apprenticeship and trades;
- (b) increase the attractiveness of trades;
- (c) deepen the relationship of children to crafts as part of a polytechnic education in primary schools;
- (d) introduce new and more effective system of embedded incentives;
- (e) encourage graduates of vocational courses at entry into employment and for self-employment;
- (f) provide quality information on craft industries and distribution channels;
- (g) improve coordination of primary and secondary schools;
- (h) increase, and find new approaches to, cooperation between employers and secondary schools.

The programme has a range of activities. First, and primarily, it serves as an awareness-raising and information campaign. This is achieved through the website, which has a range of information targeted at different groups by age and role <sup>(119)</sup>. The website also offers an online chat facility, a news feed detailing project events, and a link to social media presence (Facebook). The website also features a range of short videos illustrating different vocational careers featuring real people working in those professions locally. There is a shop selling a range of craft items produced by people in the relevant field, information about courses and training opportunities, and information about the events and other elements of the project.

In addition to the website, the project also has a range of campaigns and events aiming to promote interest in relevant careers and raise the profile of vocational training and related professions. 'TOP camps', events, in selected fields, are held regularly and provide an opportunity for high-performing students to spend a short period in the work environment. The idea is to provide complex and challenging work for the students to develop and build on their skills and to give them the opportunity to experience the real working environment. These are aimed at small groups and are short-term, typically lasting three to four days. There are also skills competitions twice a year in Prague, with the results presented on the website. The Sollertia competition is a craft fair where students compete against professionals in the relevant field. The student and the specialist

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<sup>(119)</sup> <http://www.remeslozije.cz/> [accessed 27.8.2013].

are evaluated following competition rules for performing the same task to the same criteria, demonstrating the level of skills the students have acquired and showcasing the skills involved in that profession <sup>(120)</sup>. This also helps support one of the goals of the project: engaging and involving those already working in the profession in educating and developing students.

The project is marketed in local media, actively seeking to ensure events are covered and gain publicity on TV, radio and in print. This is focused on the Prague region but sometimes receives wider attention.

The project has grown and the original budget of CZK 2 million (EUR 80 671) had been expanded to 10 million by 2010 (EUR 403 354). This is in addition to ESF funding obtained for some elements of the project <sup>(121)</sup>.

#### 7.5.3.2. *Level of implementation*

By keeping a local focus, the project is able to connect the campaign to specific events and employers in Prague, making the information available more relevant to young people in the area. This reflects a wider move towards devolution of responsibility for education provision in the Czech Republic. The Education Act of 2004 <sup>(122)</sup> sets out framework educational programmes and curricula across the country, which then can be employed more flexibly on a regional basis to consider the regional labour markets, development of the field, and the abilities and interests of students. This increased flexibility allows schools to adapt provision to regional labour market needs and conditions and act not just as implementer but to develop their own relevant education programmes and training <sup>(123)</sup>. This necessitates regional level campaigning, as provision may differ between regions so information needs to be at local level to be relevant to the opportunities available to students. This is not the only such regional information campaign. Another scheme, launched in Prague in 2010 and entitled *Já nejsem z gymnáziu!* (I do not go to grammar school) <sup>(124)</sup>, aimed to publicise technical or vocational education as an equally high quality pathway to a grammar school, which would traditionally be viewed as more prestigious. There have also been previous

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<sup>(120)</sup> ReferNet questionnaire on policy reporting: Czech Republic 2010-12, <http://www.refernet.cz/en/vet-policy-czech-republic> [accessed 27.8.2013].

<sup>(121)</sup> Information from expert involved in programme implementation.

<sup>(122)</sup> Full title: Act No 561/2004 Coll., on pre-school, primary, secondary, higher vocational and other education.

<sup>(123)</sup> Action plan for support of vocational education and training (2008), MŠMT.

<sup>(124)</sup> <http://aktualne.centrum.cz/domaci/regiony/praha/clanek.phtml?id=696142> [accessed 21.10.2013].

campaigns such as The craft has a golden bottom (Prague region) or the project Don't brag, be whizz (Pardubice and Vysočina region) <sup>(125)</sup>.

It is not clear how many students and young people are reached by the project. However, the Facebook page has received 3 462 instances of positive feedback (likes), and the more than 50 videos on the website have received differing numbers of views, ranging from around 150 to over 1000. The videos cover a range of areas: motor mechanic; cook/waiter; electrician; plumber; tailor; painter; fitter; toolmaker; mason; roofer; joiner and carpenter. Six 'TOP camps' have been held in 2012 so far, and skills competitions are held twice a year, covering different craft areas in each session. Around 22 firms working in the craft sector in the Prague area have been engaged in the project.

#### 7.5.3.3. *Target group*

This campaign tries to target both students and employers as key audiences, perhaps reflecting some of the challenges engaging social partners in IVET provision in the Czech Republic. The aim of the project is to bring students and employers together, and to raise the status and profile of vocational training and related careers.

The website provides information specific to each of the following groups:

- (a) primary school pupils interested in vocational courses: providing information on the admission process, open days at schools; apprenticeships in Prague and advice on how to choose a profession;
- (b) apprentices: information on TOP camps; the benefits; and specific programmes;
- (c) graduates: information about the history of apprenticeships; the role of experienced workers in apprenticeship provision; and advertisements for job opportunities;
- (d) teachers at primary and secondary schools: information on skills competitions; presentations of crafts; online chat facilities; and advice on connecting schools with employers;
- (e) artisans, or business owners in relevant areas: information on historical figures in the area; the activities of the Prague Chamber of Commerce; and case studies describing the motivations and experiences of those working in crafts;
- (f) companies working with secondary schools: information on processes; legal aspects and the 'teaching polygons' which categorise vocational training.

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<sup>(125)</sup> ReferNet Questionnaire on policy reporting: Czech Republic 2010-12, <http://www.refernet.cz/en/vet-policy-czech-republic>

The different elements of the project also target different groups. For example, the 'TOP camps' target the highest-performing students, offering them opportunities to test their skills and engage in challenging projects. To some extent the Sollertia skills competitions also target the highest-performing students, but they have a wider effect by raising the profile of the skills in each profession, which can influence students more widely as well as parents and employers. Professionals already working in the relevant areas are also engaged through the novel format, which may bring the competitions to the attention of employers more directly. Similarly, the 'TOP camps' engage employers, and many of the activities over and above the information provision through the website aim to bring students and employers together, promoting the apprenticeship route, which is not a common education pathway in the country.

#### 7.5.3.4. *Behavioural elements targeted*

By using different approaches in one campaign this project targets several behavioural elements. Each has different modes of operation and will influence the target audiences in different ways.

The project offers a lot of information through the website and other online mechanisms, including social media. The Eurobarometer survey (European Commission, 2011a) indicated that this was a more effective means of communicating with young people than more traditional campaign approaches, such as through TV and radio (as discussed in Chapter 4). However, the project still maintains a media presence, perhaps reflecting the fact that there are multiple audiences for the campaign, and that employers or parents might be better targeted through such outlets.

One of the key elements of the project is that much of the information comes directly from students currently engaged in vocational courses, or those working in the relevant craft areas, be that through demonstration of their skills in the Sollertia competition, through the personal case studies presented on the website, or through the short videos prepared. This is potentially powerful, as the message is coming directly from those with experience of the field, raising their profile and making the message communicated more relevant and credible. This is further strengthened through the project being based locally, since it reflects the career and training opportunities available to young people in the area and includes some of their potential colleagues and employers, making the information provided clearly relevant and applicable to their situation and environment.

By providing information through a number of routes, the approach may also be more effective in normalising and raising the profile of the educational pathway as an open and viable option, more than a limited and targeted approach might accomplish.

Skills competitions are thought to increase the attractiveness of vocational education by focusing on the skills and competence of students; through observing first-hand the level of skill involved, prejudices and preconceptions might be changed. Coaching for competitions may also help improve training. This is described in more detail in the case study focusing on skills competitions in Finland, though it is likely that skills competitions here will act in the same way. However, involving professionals in the Sollertia competition may prove effective in bringing together young people and professionals and so helping to promote the apprenticeship approach and sharing of professional knowledge with young people entering the field. This is also likely to be the case for the 'TOP camps', which may increase attractiveness to students by allowing them to gain first-hand experience in the workplace, while increasing attractiveness to employers by showing them the skills that students have acquired.

#### 7.5.3.5. *Tools/policy instruments*

The project comprises a range of initiatives:

- (a) communication through traditional means, such as TV and radio campaigns, posters, and advertising boards;
- (b) communication through new media, including social networks such as Facebook and Google+, including video clips;
- (c) working with counsellors in schools;
- (d) stalls at fairs and concerts locally;
- (e) skills events;
- (f) TOP camps.

These are all in the form of information provision and campaigning: there are no compulsory measures or direct incentives, so the policy is mainly hortatory. The project is funded for the period 2008-13.

#### 7.5.3.6. *Evidence for effectiveness*

The *Remeslo Zije!* project is primarily targeted at encouraging participation in apprenticeship schemes in the crafts, which make up a small proportion of all vocational and technical education; there are no data on participation in this subset of all IVET courses at regional level. However, in March 2010 a poll of parents of primary school pupils found that awareness of the campaign is fairly high, at around 50% among this group in the Prague region.

The aims and focus of the project have developed and extended over its lifetime. The original aim to try and recruit more apprentices has developed with the programme, which now seeks to address some of the structural weaknesses of the apprenticeship system. Enterprises often criticise the level of preparedness

for work of vocational programme graduates, and the scheme aims to address this by engaging more students, whether in apprenticeship-type programmes or not, in interactions with employers, and trying to get employers more involved and integrated with the education provided. Prague is the only region in the Czech Republic that has focused on apprenticeships in this way. Taking the aims of the project in this wider context, looking at participation levels, even if they were covering apprenticeship schemes specifically, would not assess all the intended outcomes and the effectiveness of the project.

No formal evaluation of the programme has been conducted or is planned, but informal feedback from vocational technical schools and their pupils is broadly positive (<sup>126</sup>). The project is considered by authorities in Prague to have been successful, and in 2010 another scheme was launched within the city focusing on wider participation in vocational and technical education in the region. The project, called *Já nejsem z gymplu!* (I do not go to grammar school) (<sup>127</sup>) aims to demonstrate that technical or vocational education is an equally good route to that offered by a prestigious school (as grammar schools are traditionally viewed). The project will draw on the elements of the *Remeslo Zije!* project that are felt to have been most effective and include a website and short videos.

#### 7.5.3.7. *Wider outcomes*

This project forms part of a wider trend in the Czech Republic of increasing localisation of not just implementation but development of education policy. The steps taken here demonstrate increasing engagement of the Prague City Hall and Chambers of Commerce in vocational education as a priority; they show that attention is being paid to its declining popularity, despite relatively high participation levels historically and currently (though there has been a decline). The need to raise the prestige of careers in these fields and the need to engage employers directly is acknowledged.

### 7.5.4. **Case 2: incentives for social partners to engage in IVET provision**

#### 7.5.4.1. *Description*

Social partners are not greatly involved in the provision of IVET in the Czech Republic. According to the 2001 White paper (MŠMT, 2001), almost 65% of those

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(<sup>126</sup>) See for example: Craft alive! project, progressing on Facebook, has almost a thousand fans.

[http://www.praha.eu/jnp/cz/home/magistrat/tiskovy\\_servis/tiskove\\_zpravy/prazske\\_sk\\_olstvi\\_remeslo\\_zije/projekt\\_remeslo\\_zije\\_uspesne\\_pokracuje.html](http://www.praha.eu/jnp/cz/home/magistrat/tiskovy_servis/tiskove_zpravy/prazske_sk_olstvi_remeslo_zije/projekt_remeslo_zije_uspesne_pokracuje.html)

(<sup>127</sup>) <http://aktualne.centrum.cz/domaci/regiony/praha/clanek.phtml?id=696142>

completing apprenticeships have never spent time in the working environment during their vocational training. As described in Kuczera (2010), data on the level of provision of workplace training for students are not systematically collected; however, there are various estimates of the level of provision. Czesaná et al. (2007) suggested that only 35% of students in apprenticeship programmes receive any practical training in a company, matching the estimate in the 2001 *White paper*. The study also finds that participation is higher, covering 90% of students, in four-year technical programmes but that most of these work placements last no more than three weeks. In 2006, the PISA (<sup>128</sup>) survey of school head teachers found that 20% of apprenticeship schools do not offer any kind of training in the workplace, and that in 40% of schools less than half of the student population receive workplace training. In only 40% of apprenticeship schools do the majority of students carry out training at local enterprises.

There are several reasons for this lack of involvement of employers in IVET provision. NÚOV (2008a) survey suggested various reasons, from both the perspective of schools and employers. Schools believe that the lack of employer engagement is a key obstacle to further workplace training. They suggest that this lack of engagement is the result of legal obstacles and a lack of funding for training provision to employers. From the employers' perspective, IVET graduates were seen as being poorly prepared for the workplace and sought longer and better quality practical training, which could be supported by better collaboration between schools and employers. They suggest that students do not have a realistic view of working hours, conditions and career prospects, and that time in the workplace would help to address this. Lack of practical work experience is suggested as one of the main reasons for rejecting potential recruits (NÚOV, 2008b). There is some willingness to address this issue on both sides but obstacles have prevented it being addressed.

The action plan for support of vocational education and training, (<sup>129</sup>) published by Ministry of Education, Youth and Sports (MŠMT) in 2008, aimed to promote workplace learning, including through the use of financial incentives for companies to engage. One option allowed schools to use part of the funding that would be used for the provision of practical training within schools to fund employers to provide that training in the workplace. The action plan also offers a new option in which employers are allowed to keep expenses incurred through

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(<sup>128</sup>) Programme for international student assessment.

(<sup>129</sup>) [http://www.vzdelavani2020.cz/images\\_obsah/dokumenty/knihovna-koncepci/akcni-plan-odborne-vzdelavani/zp\\_akcniplanpodporyodbornehovzdelavani.pdf](http://www.vzdelavani2020.cz/images_obsah/dokumenty/knihovna-koncepci/akcni-plan-odborne-vzdelavani/zp_akcniplanpodporyodbornehovzdelavani.pdf) [accessed 21.10.2013].

offering training as eligible expenses in their books within the relevant provisions of the Education Act, where those expenses are borne by the employer. However, this second approach has not been fully implemented and, at present, employers may deduct from the tax base the cost of training their employees but not those for students/trainees.

The aim is to address the longstanding challenge in IVET in the Czech Republic of low engagement of employers in provision, something that has been on the policy agenda for more than a decade. This issue was first recognised in the *National programme for the development of education in the Czech Republic white paper* (MŠMT, 2001). The fact that students receive little or no training in a work environment is identified as one of the major causes of the difficulties graduates have in transition into the workplace; this is commonly raised by employers and impacts on the attractiveness of IVET graduates for them (Kuczera, 2010). Closer cooperation between schools and social partners is stressed in this document as a means to address this issue, and is also identified as a key factor needed to reach the objectives laid out in the Strategy for human resources development in the Czech Republic approved by the government in 2003.

Although the action plan lays out the option to offer incentives and support to engage social partners, the actual form this takes and the way it is implemented is determined locally. There are many different ways in which this has been attempted, including to different extents in different regions and sectors. National curricula permit the provision of practical training in the workplace, and headmasters at particular schools are responsible for incorporating workplace learning into school-based curricula. The Czech School Inspectorate then evaluates the consistency between national and school-based curricula, reflecting wider moves towards localisation in the Czech Republic. Quality of VET provision at schools is assessed by the Czech School Inspectorate, but not on the premises of the companies and currently there is no formal mechanism to assess the quality of education provided in the workplace.

Social partners are involved in several other aspects of IVET outside of direct training provision. In the revision of the school curricula, and preparation of 'two-tier' curricula as part of the New Schools Act 2004 <sup>(130)</sup> social partners are engaged in content preparation. They are also involved in the examination of students: it is required that a representative of employers must be also present at the final examination of students in the case of programmes concluded with final

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<sup>(130)</sup> Full title: Act No 561/2004 Coll., on pre-school, primary, secondary, higher vocational and other education.

certificate. Representatives of employers are also present in sector councils that participate in defining qualifications standards within the creation of national register of vocational qualifications. Financial incentives support the provision of materials for training. The incentive offered is 5% of the tax base for those companies which provide financial gifts to secondary and tertiary professional schools or finance modernisation of equipment used for practical training of students. The funds must be dedicated to improving training facilities, such as repair of machines or purchase of materials.

#### 7.5.4.2. *Level of implementation*

Although the policy framework is provided nationally, implementation is at sectoral and/or regional level (or even at school level depending on the approach taken). This means that incentives used and the way their application differ significantly, as does the extent to which this policy has been taken up. There are good examples of the different ways in which this approach has been employed.

Financial incentives at sectoral level are seen in grant programmes provided by specific ministries. The Ministry of Agriculture provides grants to businesses which have been awarded the status of school businesses, meaning they collaborate with schools in IVET provision. The grant is intended to develop the workplace to be appropriate for training and to support costs.

Short-term programmes to engage employers at regional level include efforts such as the 'TOP camps', which form part of the *Remeslo Zije!* project. These show how employers can be engaged on a short-term basis, requiring less commitment and removing some of the obstacles that would be present for more long-term engagement.

National efforts to remove legal and organisational obstacles aim to increase the share of workplace learning by 2015 by focusing on reducing legal and organisational obstacles to IVET provision in the workplace and on workplace training for teachers. This includes identifying and publicising best practice in incorporating workplace learning into school-based curricula.

There are no systematic data collected on the level of engagement of either schools or firms in these kinds of activities.

#### 7.5.4.3. *Target group*

The primary target group for this initiative is employers. The aim of the scheme is to attempt to engage them more in the provision of IVET, improving IVET quality and making the training provided more relevant to them, thus making IVET graduates more attractive to them as employees. This serves a secondary purpose of making IVET more attractive more widely, to students and parents, by

improving the quality and labour market relevance of the training opportunities provided, as well as making the training more interesting.

Although the wide target group is clearly defined, different initiatives may target different groups or categories of employer. For example, the scheme run by the Ministry of Agriculture is targeting employers in a particular sector, with the aim of improving training and performance in that sector. By contrast, regional schemes will target employers in a particular region, likely having a secondary aim such as improving the economic situation and competitiveness of the region, or reducing levels of early school leaving in that region. These groups may respond to different types of incentive depending on their position and motivation. While large companies might be motivated by showing their commitment to corporate social responsibility, SMEs might find this less compelling, and instead may need to be provided with more concrete (e.g. financial) incentives to participate, particularly in the current economic climate.

#### 7.5.4.4. *Behavioural elements targeted*

The policy instruments discussed here provide incentives, often financial, for social partners to engage in IVET provision. This addresses one of the key insights of the mindspace framework; the tendency to operate on a short-term basis, favouring short-term gains over greater long-term ones. The time, effort, and expense of engaging in IVET provision may deter employers, even though this is likely to be beneficial to them in the long term by improving the provision of high-quality well-trained employees, and through the work which students will be able to contribute during their training. Financial incentives can operate in different ways, as described above. At present, most take the form of grants or financing to cover some or all of the costs associated with establishing and providing training. However, other measures have been proposed, such as tax breaks, which would offer different advantages to employers.

Some of the initiatives described do not necessarily provide direct financial incentives to encourage employers to engage, but take other approaches. For example, TOP Camps are short-term schemes where pupils are brought into the workplace for just a few days. This requires a smaller commitment from employers and overcomes some of their concerns regarding the time, cost, and administrative burden in engaging with IVET provision. It is likely that by engaging employers in this short-term way, they are more likely to consider such programmes, including larger scale commitments, in the future.

#### 7.5.4.5. *Tools/policy instruments*

Various policy instruments have been used to engage employers in IVET in the Czech Republic, reflecting the challenge involved in overcoming the cultural norm

that education is provided exclusively in a school setting. These include financial incentives, voluntary schemes, and capacity-building efforts (in the cases where training to teachers is provided as well as, or instead of, training for students in the workplace); they cover both hortatory and inducement-type instruments. Different implementation approaches use these instruments in different ways, depending on the target audiences. The approach appears somewhat 'scattershot', with few real national policy instruments supporting the framework laid out in the action plan. However, this partly reflects the move to increasing decentralisation in the Czech Republic.

#### 7.5.4.6. *Evidence for effectiveness*

There is a strong body of evidence internationally to show that increasing the level of workplace training in IVET programmes offers benefits to both students and employers (Field et al., 2009). Many skills can only be taught effectively in the workplace; cooperating effectively with a range of colleagues, or dealing with customers are examples (Aarkrog, 2005).

There is evidence that financial incentives can be effective in helping to increase the provision of workplace training but it seems that this depends on circumstances. Other factors can have a greater impact, such as the intention of the company to hire new employees (Westergaard-Nielsen and Rasmussen, 1999), and the approach may only be effective in encouraging the recruitment of apprentices in companies which do not already offer workplace training (Muehleemann et al., 2007). However, this evidence is from Switzerland and Denmark, where the engagement of employers in training provision is much stronger. In the Czech Republic, which has a limited level of participation at present, stronger encouragement such as financial and other incentives may be needed to engage companies (Kuczera, 2010).

#### 7.5.4.7. *Wider outcomes*

As described in the OECD analysis of the Czech Republic (Kuczera, 2010), employer willingness to provide workplace training will depend on the economic situation. In time of hardship, they may be less willing to commit to untested forms of training with uncertain outcomes, which make this a difficult initiative to implement in the current climate (Brunello, 2009). However, the existing environment in the Czech Republic, with low job mobility, low adult participation in training and low use of non-standard jobs, suggests that this may be an effective policy for the country, since it is likely to improve the match between employer and employee before signing a contract, and may better match skills supply and demand. The potential benefits are significant, beyond increasing the attractiveness of IVET (Kuczera, 2010).

#### **7.5.5. Conclusion**

No formal evaluations of these specific initiatives have been conducted. However, engaging employers in workplace provision of IVET training remains a challenge and is a continuing focus in the Czech Republic. A new national project, promoting cooperation between schools and companies with focus on vocational education in practice (POSPOLU), was introduced in March 2012 by the Ministry of Education, Youth and Sports <sup>(131)</sup>. This is aimed at both pupils and teachers in VET, with the aim being to support training for both students and teachers (with a particular emphasis on teachers) in industry in all regions and various sectors. Further monitoring and evaluation of this new initiative and other initiatives introduced is required to understand what approach is most effective in addressing these challenges in the Czech context.

One of the main successes of the range of measures introduced over the past 10 years in this area has been to establish platforms for communication between schools and employers. Perhaps what is lacking now is more effective data collection to understand who is engaging with these different measures, and the effect they are having. Further evaluation is needed so that best practice can be established and disseminated.

### **7.6. Denmark**

#### **7.6.1. Introduction**

In recent years the number of those choosing to enter vocational pathways has been in decline in Denmark. For those who do enter the vocational system, dropout rates are remarkably high. This has motivated the government to introduce several measures in an attempt to increase IVET attractiveness.

One such measure is Quality patrol, a three-year project targeting every IVET school in Denmark. Its purpose is to aid the exchange of best practices across all schools, strengthening IVET provision. It addresses nine focus areas, including the quality of education offered, measures to reduce the high number of dropouts, and the relationships schools have developed with training enterprises and other local schools. Once best practices have been identified, they are shared on the project website for schools to access.

To disseminate the work further, those in the patrol also stage conferences and workshops and write articles which are sent to schools and/or local media. In

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<sup>(131)</sup> ReferNet questionnaire on policy reporting: Czech Republic 2010-12, <http://www.refernet.cz/en/vet-policy-czech-republic>

the upcoming final year of the project, a more sophisticated dissemination strategy will be developed to target students and parents accurately.

Quality patrol is just one measure in a series to improve attractiveness. Others include international and national skills competitions.

## 7.6.2. Context

### 7.6.2.1. *The attractiveness of VET is in decline*

There is substantial evidence to suggest that the attractiveness of IVET in Denmark has been decreasing in recent years. Since 2000, pupils completing compulsory schooling have been increasingly applying for general upper-secondary education: figures rose from 25.7% in 2000 to 38.4% in 2010. Meanwhile, applications to IVET have been in decline; in 2010 only 10.6% of pupils applied to enter IVET, compared with 12.2% in 2009 and 13.1% in 2007. However, many young people who enrol in general upper secondary education later transfer to a vocational pathway (Cedefop Refernet Denmark, 2010).

The reduced attractiveness of IVET is also reflected in the Eurobarometer data. In 2004, the proportion of people who would recommend vocational and general education to young people was similar, at 26% and 27% respectively. In 2011, only 14% of people would recommend vocational education, but 43% would recommend general education at the upper secondary level.

Several reasons have been suggested for the decline in IVET attractiveness. These include the idea that the transition from lower secondary to general upper secondary education is seen as more natural (Cedefop Refernet Denmark, 2010, p. 40) and the longer duration of IVET courses compared to general education. The very high dropout rates within the IVET system in Denmark also produce a problem for the attractiveness of IVET. This problem is high on the agenda for policy-makers and is addressed by the initiative outlined below.

### 7.6.2.2. *Good economic picture by EU standards*

Prior to the global economic recession of 2008, unemployment in Denmark was at the lowest it had been for 34 years. However, Denmark has been significantly affected by the economic crisis, with employment rates falling from 79.7% in 2008 to 77.5% in 2009 and 75.7% in 2011 (Eurostat). The industrial and construction sectors have been particularly affected and in 2010 they accounted for half the number of total jobs lost at 66 000 and 34 000 respectively (Cedefop Refernet Denmark, 2010). The transport, post and telecommunications sector also decreased, by 10.2%, as did the retail, hotel and restaurant sector, by 5.7%. However, unemployment levels remain low compared to the EU average.

The reduction in available jobs has particularly affected young people, with approximately one in 10 under age 30 unemployed in 2010. This resulted in a considerable increase in the number of young people entering education, although the number of those choosing a vocational pathway continued to fall over this period. This can be explained through the tendency of young people to enter IVET after leaving education or following upper general secondary education. Once again, although youth employment decreased significantly during this time, it remained higher than the EU average, with 63.6% of young people employed compared with an EU average of 35.2%.

Perhaps the most significant impact the crisis has had on the vocational sector is the lack of apprenticeship training contracts for students. This is a crucial element of the system in Denmark, and is necessary for students to move from the basic course in the first year to the more specialised main course in the second year; absence of placements can lead to high levels of dropout. IVET programmes have at their core a contract between the apprentice and the employer, so this decline in availability of placements is highly significant. As outlined above, high dropout rates are a significant problem for the IVET system.

#### *7.6.2.3. Demographic picture affected by immigration*

Immigration is higher than emigration, although it is considerably lower than neighbouring countries such as Germany and Sweden. However, almost one in three immigrants is a Danish citizen returning after a period abroad. Danes also comprise nearly half the total annual emigration figures. Despite this, the proportion of the population which is from another country of origin is increasing, at 9.8% in 2010. Turkey, Germany and Iraq are the three most common countries of origin, with 54% of the total coming from other European countries. In 2011, 345 884 foreign citizens were living in Denmark (Eurostat).

The population is also ageing. The projected old age dependency ratio is expected to rise from 24.98% in 2010 to 29.09% in 2015. This trend is expected to follow the EU average until 2035 (Cedefop Refernet Denmark, 2010).

#### *7.6.2.4. Educational attainment in decline*

Educational attainment in Denmark is not particularly high, especially given that the Danish government aims to have 95% of young people complete upper secondary education by 2015. In recent years there has been a decline in the level of education among young people, following a period of sustained growth. In 2008, 71% of 20 to 24 year-olds had completed at least upper-secondary education, compared to the European average of 78.5%. This is perhaps reflective of the tendency for Danes to switch between upper-secondary programmes and have

breaks within their education, though in 2002 the Danish figure was above the EU average at 78.6% (Cedefop Refernet Denmark, 2010).

However, in 2008 there was a decline in those attaining at most lower secondary education and not in further education or training. This had been increasing since 2004, dropping to 11.5% from 12.5% the previous year. One explanation for this could be the scarcity of job opportunities which forced the young cohort back into education.

There is a considerable difference between males and females in terms of educational attainment in Denmark. Of females aged 20 to 24, 78.6% had completed upper-secondary education, compared to just 63.6% of males. Again, this can be partially explained by the lack of apprenticeship placements, which largely effect male-dominated industries such as construction (Cedefop Refernet Denmark, 2010).

### **7.6.3. Case 1: quality patrol**

#### *7.6.3.1. Description*

The Quality patrol project was established in October 2010 as part of a wider government initiative to increase the attractiveness of IVET. The aim of the project is to aid the exchange of best practice in nine focus areas across all IVET schools in Denmark, of which there are 100. Ultimately, it is hoped that the initiative will help to improve IVET quality, not only in terms of teaching, but also in terms of student support, mentoring and flexibility, resulting in a higher student intake and lower dropout rates.

The project is due to last for three years, over the course of which time each IVET school will be visited at least once by a 'quality patrol'. In each visit, schools are invited to present the practices they believe they excel in for each of the nine focus areas. The focus areas, along with various examples, are outlined below:

- (a) training: this area focuses on how training can be organised. Best practices are divided into six categories: basic vocational training (EGU), EUX diploma (taken alongside general education), basic adult education (GVU), individual VET, new apprenticeships and production-based VET. A few examples of best practices across the various categories include developing training programmes for the strongest students, collaborating with employers and other schools to strengthen training pathways, and action plans for improved training implementation;
- (b) planning of education: this area is concerned with how vocational pathways are offered, and provides examples of best practice across various options such as basic packages, prior learning assessments, electives, special subjects, superstructure, choice of level of differentiation, innovation and

- entrepreneurship, internationalisation, and the complementary basic education;
- (c) pedagogy and didactics: the focus of this area is how various pedagogical and didactic methods can be applied within IVET. Examples of this include the use of IT, the use of reading guides, and health and fitness among others;
  - (d) maintaining/increasing retention: the high dropout rate within IVET is of key concern. This area is concerned with measures schools have taken to maintain/increase current retention rates. Examples of best practice measures include mentoring schemes for students, schemes for parental involvement, and the establishment of student councils which advocate student responsibility and pedagogical techniques;
  - (e) school environment: the emphasis in this theme is on engaging students in extra-curricular activities, particularly socially, such as student council work, sports and fitness activities, social activities such as introduction fairs for new students, and allowing students the opportunity to study abroad;
  - (f) internships: the aim is to aid students in finding internship opportunities. This includes forging relationships between schools and local businesses, supporting fairs showcasing internship opportunities, and offering help to students looking for internships;
  - (g) quality work: the quality theme is concerned with various ways in which schools ensure quality IVET provision. This encompasses a broad range of initiatives including analyses to identify weak subjects which could be addressed in future action plans, student councils intended to inspire students to produce better quality work, educational development (such as establishing small teams with oversight over educational programmes) and structural changes intended to incorporate quality assurance into daily practice;
  - (h) competence of employees: the focus of this area is the provision of professional development and training opportunities for IVET teachers;
  - (i) cooperation with external environment: this area focuses on how schools reach out to others in the local environment. This could include collaboration with local businesses, training enterprises or other schools.

After spending a day meeting with selected students, teachers and management, the patrol select between three and six best-practices to share with other IVET schools on the project website <sup>(132)</sup>.

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<sup>(132)</sup> <http://www.kvalitetspatruljen.dk> [accessed 27.8.2013].

### **The inclusive nature of Quality patrol**

Quality patrol is an inclusive policy intended to aid knowledge exchange, rather than rebuke schools for identified weaknesses. Schools are not assessed against formal criteria, but praised for their strengths. Schools are notified of the appointment with a quality patrol at least six months in advance, and reportedly eagerly anticipate the visit. It not only provides a chance for schools to showcase their areas of strength to prospective students and to learn new ways to address weaknesses in their system, but also offers an opportunity for school management to interact directly with the Ministry of Education. Ministry staff attends at least one quality patrol visit, and the direct dialogue between schools and the ministry through by the project is highly valued.

### **Dissemination**

Every Quality patrol visit is formally evaluated by the patrol staff, at which time the best practices for each school are identified. The schools are asked to upload material on such practices on to the project website for others to view; currently 200 different types of material are on the project website.

An important aspect of the project role is arranging conferences in which best practices are disseminated to teachers and guidance counsellors. All conferences are open to any interested parties, typically teachers, guidance counsellors and in some instances, the general population of the region. The project also supports workshops hosted by schools, specifically aiming to share ideas on best practice to teachers. It also produces articles to be displayed on the website, sent to schools, or disseminated to local media.

The project has one more year until completion, and it is relatively unclear how it will progress during that time. As of September 2012, all of the IVET schools had been visited once and had contributed to best practices. It had yet to be decided whether they would be visited for a second time in the remaining year. Meanwhile the project will be evaluated and a more sophisticated dissemination strategy will be developed to target students and parents.

#### *7.6.3.2. Level of implementation*

The project has reached every IVET school in Denmark, of which there are 100. It encourages relationships across various types of IVET schools, as well as geographic boundaries. Schools are divided into technical, commercial, health and agricultural categories and, prior to this initiative, it was uncommon for different varieties of schools to communicate with each other. In one instance, a relationship was forged between geographically disparate schools to improve internet technology, resulting in new policies within a school and a visit to the best-practice school.

#### 7.6.3.3. *Target group*

For the initiative to be successful it needs to target and engage school managers, teachers and guidance counsellors, spreading best practices will across the IVET system.

The project primarily aims to target students in lower secondary education who have yet to decide on either a vocational or academic pathway. By improving the quality of IVET it is hoped that students will perceive it as a more attractive option. However, the work of quality patrols is very much focused within the school; a way to disseminate a school's strengths or adopted practice to students and parents has yet to be developed.

Within the school, the patrol particularly likes to hear from guidance counsellors in the 8th, 9th and 10th grades to ascertain the most effective ways to communicate vocational options to students, along with the most fruitful relationships between guidance counsellors and schools.

#### 7.6.3.4. *Behavioural elements targeted*

This initiative aims to affect student behaviour, first in selecting IVET over an academic pathway and second in remaining in education until course completion. However, for the initiative to succeed, it relies on school managers, teachers and guidance counsellors to improve the institution in which they work, and the quality of vocational education provided, by adopting examples of best practice. The policy encourages this behaviour change in several ways. It is thought that 'responses to incentives are shaped by predictable mental shortcuts such as strongly avoiding losses' (Dolan et al., 2010; p. 8). With that in mind, it is likely that school employees will take the opportunity to adopt a 'proven' practice in an under-performing area to safeguard against losses, and minimise the risk associated with change.

Also, the policy uses a novel approach which may help to engage participants. Given that the patrol puts schools that are challenged in a certain area in touch with a school that is flourishing in that area, the direct relevance and import of the policy for each school is clear. This should foster communication between schools and it may help to encourage wider participation in the project, such as use of the website.

As the project is built on creating networks across schools, it relies on the participation of all schools. Behavioural change research suggests that individuals are much more likely to participate if 'everyone else' appears to be doing so. Given that schools are required to be active in the networks established, they are likely to build relationships with each other. Individuals will generally act in ways that make them feel good about themselves so, schools are likely to want to help others, particularly given that they are also benefitting from such help from others.

#### 7.6.3.5. *Tools/policy instruments*

The most important law on VET in Denmark is the Vocational Education and Training Act (*Erhvervsuddannelsesloven* – LOV No 510). This covers a wide range of issues from providing overall objectives to outlining frameworks for access.

The Quality patrol project was part of a DKK 15 million (EUR 2 016 310) national government initiative to increase the attractiveness of IVET through improving quality and attracting high achievers. DKK 11 million (EUR 1 478 360) was awarded to the project and the remaining DKK 4 million (EUR 537 683) was spent on other attractiveness initiatives, such as skills competitions. This is a top-down initiative which schools are not permitted to opt out of. Schools are encouraged to upload material to the website through follow-up phone calls from the patrol. Therefore, the primary policy instruments in use are mandate and capacity building.

#### 7.6.3.6. *Evidence for effectiveness*

The project has yet to be evaluated, and the extent to which schools adopt best practice as a result of the visit is relatively unknown. At present there are no formal systems to capture how far the website is referred to by schools, or whether long-term interaction between schools takes place. The patrol does have some sense of use through informal reports from schools; capturing this information will become one of the objectives for the coming year through the independent evaluation to be commissioned. However, precise indicators and measures of success have yet to be decided on.

Nevertheless, the project is able to identify where schools generally tend to excel, and where they face challenges. The website has a lot of information on best practice in planning day-to-day teaching, ensuring the quality of the school, and safeguarding against high dropout rates. Areas lacking information on the website perhaps reveal national challenges in the system, given that few schools have identified best practices in that area. This offers intelligence regarding where policies most need to be implemented, and may inspire conference topics to address the challenges.

#### 7.6.3.7. *Wider outcomes*

Given that the project has yet to be evaluated, wider outcomes cannot be identified at this stage.

### 7.6.4. **Conclusion**

The Quality patrol project has reportedly been very well received by schools, which look forward to the visit to improve the service they offer. Although there are

no concrete measures of effectiveness yet, it is likely that the patrol has helped to develop fruitful relationships which may ultimately lead to a more effective vocational system.

## 7.7. Spain

### 7.7.1. Introduction

Organic Law 5/2002 on qualifications and vocational training was the beginning of the modernisation and improvement of the national system of qualifications at State level. The law was introduced at regional government level (Autonomous Communities), which works towards the integration of different forms of certification and accreditation of qualifications and skills. This law also establishes that the IVET titles regulated and issued by the educational administrations are the only valid titles throughout the country.

Currently there are three levels of VET qualification in Spain: levels 1, 2 and 3, equivalent to ISCED 2, 3 and 4 respectively. Level 1 qualification consists of professional certificates and includes the initial professional qualifications programmes (PCPI). VET new titles have been developed in accordance with the national catalogue of professional qualifications (CNCP, *Cualificaciones profesionales del catálogo nacional*). Level 2 qualifications (or intermediate VET, *Ciclo formativo de grado medio*) is the most common pathway. These qualifications last two years (from 16 to 18) and include in-company training (though not employment). Level 3 qualifications are part of secondary non-tertiary education (*Ciclo formativo de grado superior*) and are usually for people aged between 18 and 20.

Initial professional qualifications programmes (PCPI) provide an alternative for students who do not want to follow the traditional educational pathway to achieve the diploma of compulsory education or some form of educational qualification. PCPI are characterised by offering different modalities, responding to the different needs and circumstances of students. They are based on the principles of flexibility (such as being able to do the courses in one or two years), pragmatism (includes several credits to be obtained through on-the-job training), and personalised training (groups of up to 15 people). Besides the particular characteristics of PCPI, students finishing these programmes increase their chances of joining the labour market and of avoiding social exclusion. Obtaining the diploma in compulsory education opens the door to continuing education, even if a person decides to continue studying later in life. Having a professional qualification is especially important at a time when the Spanish labour market is

going through a period of high unemployment (almost 25%), and where the chances of getting a good quality job increase with the level of qualification.

## 7.7.2. Context

### 7.7.2.1. *Growing VET enrolment but mixed views on attractiveness*

Vocational training in Spain has traditionally been considered by parents and students as a second option, clearly behind general education. However, the upward trend in the number of students seeking to enrol in vocational training education is a clear sign that society is increasingly valuing IVET as an option. The increase in training in VET has gone hand-in-hand with a decline in the number of students choosing general education, favouring a balance between educational pathways.

Eurobarometer data (European Commission, 2011a) also indicates that VET is relatively popular: 69% of those surveyed reported that VET has a positive image. Most people surveyed in Spain also believe that VET leads to professions with high demanded in the labour market. Some 53% thought VET students would be more likely to find a job after their studies. Despite this relatively positive view, people surveyed would recommend general education more than vocational education to a young person finishing compulsory education (37% over 30%). This is a change from 2004, when 44% recommended VET and 30% recommended general education.

### 7.7.2.2. *Economic situation not improving*

Unemployment rates in Spain are at an all-time high. In May 2012, unemployment was highest in Spain, at 24.6% up 0.3% compared to the previous month (OECD, 2012), with young people particularly affected by the crisis. Youth unemployment (15-24 year-olds) was 52.1% in Spain in May 2012 (OECD, 2012). Within the young population, those with low levels of education find it most difficult to find a job. Also working conditions (salaries, type of contract) for young people without education tend to be precarious. Eurostat data for 2011 show that unemployment for people with just primary education reached almost 30%, whereas for those with upper secondary and post-secondary non-tertiary education it was approximately 22%. In contrast, unemployment levels of those with tertiary education were around 13% (Eurostat).

The older workforce in Spain tends to have lower unemployment rates compared with other age groups. However, once they are unemployed, they tend to become long-term unemployed (more than 12 months) and face greater difficulties to remain in touch with the labour market.

#### 7.7.2.3. *Ageing population*

Spain's population is ageing rapidly. Based on trends in fertility, mortality, and migration <sup>(133)</sup>, the National Institute of Statistics (INE) predicts that the population growth will become negative in 2020, and the share of the population aged over 64 will double in the next 40 years. As a consequence the old-age dependency ratio in 2050 will be 58.7% versus 24.7% in 2010 (INE, 2010). On the other hand, the population aged below 25 is expected to decrease slowly in the next decade. The INE predicts this age group will represent 31% of the population in 2025 (compared to 25.5% in 2010).

#### 7.7.2.4. *Low levels of educational attainment*

Early school leaving in Spain is very high at 28.4% in 2010, almost double the EU average of 14.1% for the same year. It has decreased by 2.8 percentage points compared to the previous year, and by 3.5 percentage points over the past two years.

The rate for young people with at least upper secondary education is 61.2%, lower than the European average of 79% and also far from the EU target for 2010 of 85%.

### **7.7.3. Case 1: initial professional qualification programmes (PCPI)**

#### 7.7.3.1. *Description*

The aim of the Initial professional qualification programmes (PCPI) is for all students to achieve competences corresponding to Level 1 of the *National catalogue of professional qualifications* established by Law 5/2002 on Qualifications and vocational training. They should have the opportunity to expand their skills for further basic studies, so increasing the likelihood of social integration.

PCPI is focused on young people who have not finished compulsory secondary education (*educación secundaria obligatoria*). Typically the profile of a student joining a PCPI programme is of high risk of early school leaving, low academic performance, or with adaptation problems due to their personal or socioeconomic circumstances. To encourage such students to stay in the school system, the curriculum offer and methodology have been developed to avoid classical classroom teaching and replace it with practical workshops and classes. Further, teaching aims to adapt to student needs, focus on motivating students, and rewarding effort.

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<sup>(133)</sup> As of 2019 the projections include a constant migration flow of 400 000 people.

PCPI include compulsory and voluntary modules. Compulsory modules are split between specific and general variants: students who pass the compulsory modules receive an official certificate issued by the relevant education administration. Students who aim for a diploma of compulsory secondary education may choose to do so by completing the voluntary modules (after having completed the compulsory module). Additional detail is provided in Table 18.

Table 18. **Types of module in PCPI**

<b>Compulsory modules</b>	
Specific modules	Professional modules associated to level 1 qualification Training at work
General modules	Basic training Social and linguistic Scientific and technological field Prevention of occupational risks Job placement project
Voluntary modules	Communication Social Scientific and technological

### **Compulsory modules: general**

The basic training module has been set up with the objective of ensuring that students develop basic skills. These skills are important not only in the transition from school to work but also in that training in basic skills should allow students to continue to the voluntary modules that allow them to obtain the certificate of compulsory secondary education. The basic skills module is organised around the following areas of knowledge: linguistic, social skills, science and technology. The process of teaching and learning serves the general principles of individualisation and integration of learning.

The module on prevention of occupational risks consists of 30 hours of training during the last quarter of the year.

The job placement module also consists of 30 hours during the last quarter. This module provides students with the opportunity to experience various aspects of labour market needs: personal knowledge (skills, abilities and attitudes, occupational interests, expectations); productive environment (description of the sector linked to the programme: business types, characteristics of jobs, training routes and promotion); team relationships (professional communication, teamwork); job search techniques (jobs, resources for job search, curriculum vitae, job application, cover letters, the selection process, tests, interviews); and an integration project (development of the student in a project that applies the previous contents).

Four different modalities exist within the compulsory modules. The first is the 'special modality', which lasts two years and is aimed at students with special educational needs. The second is the '*aulas profesionales*' (professional classrooms) aimed at students at risk of social exclusion and with difficulties in adjusting to school or work. The modality is 'transition to work', which consists of a year of study designed for students who were not enrolled in any course prior to the start of the programme but need support to join the labour market. Typically this applies to people of low-income families. The last modality is called 'general', which applies to most people joining PCPI (<sup>134</sup>).

### **Compulsory modules: specific**

Specific modules consist of courses which lead to a level 1 professional qualification. Each includes a period of workplace training of 120 hours, held over four weeks during the last quarter of the program.

### **Voluntary modules**

Voluntary modules can only be attempted by those students who have passed the compulsory modules and meet the age requirement to continue their education in compulsory secondary education.

Both compulsory and voluntary modules may be offered by schools, local corporations, professional associations, NGOs and other business entities, but always under the coordination and supervision of the education authorities.

#### *7.7.3.2. Level of implementation*

The decentralised model of the educational system in Spain means that powers are divided mainly between central government and the Autonomous Communities (regional government). The central government regulates basic rights and develops the legal framework. The Autonomous Communities regulate aspects such as official curricula, rules for evaluation and promotion, or the organisation and functioning of educational institutions, among other issues. The Autonomous Communities have also been charged with implementing the PCPI.

The PCPI came into force in 2007/08 after the approval of Organic Law on Education of 2006 and of the Royal Decree 1538 of 2006, and was voluntarily implemented by all 17 Autonomous Communities. The total number of students expected to enrol in PCPI in 2011/12 is shown in Table 19, and represents just over 6% of upper secondary education enrolees. The proportion of those enrolled in PCPI in different territories is relatively similar; there also seems to be a similar

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(<sup>134</sup>) [http://www.madrid.org/fp/ense\\_pcpi/pcpi\\_caracteristicas.htm](http://www.madrid.org/fp/ense_pcpi/pcpi_caracteristicas.htm) [accessed 28.8.2013].

proportion between the number of students enrolled in the system and the percentage of students enrolled in a PCPI programme (Sáenz Almeida et al., 2010).

The content and nature of the PCPI offer is determined in accordance with the powers of each Autonomous Community. Each has total discretion to organise and regulate these programmes and adapt them to the educational, social and productive circumstances of their territory, which has also led to a proliferation of different PCPI offers.

#### 7.7.3.3. *Target group*

The programme enrolls pupils aged 16 or older (and under 21) on the year that the programme begins. Exceptionally, and with the agreement of students and parents or guardians, the age may be reduced to 15. Table 19 shows that the Ministry of Education expects 85 618 students to be taking this route for 2011/12, an increase of 7% compared to the previous year. For the same academic year, the Ministry of Education expects 302 182 IVET students (ISCED 3).

Table 19. **Expected number of students by course in 2011/12**

	Expected number of students 2011-12	% change with previous year
Programas de Cualificación Profesional Inicial (PCPI)	85 618	7.0
Formación Profesional (IVET)	610 860	5.6
FP Grado Medio (ISCED 3)	302 182	4.7
FP Grado Superior (ISCED 4)	280 379	5.6
FP a distancia (open IVET)	28 299	16.6
General education	684 697	2.2

Source: *Datos y cifras curso escolar 2011:12* (Ministry of Education).

#### 7.7.3.4. *Behavioural elements targeted*

Obtaining the diploma of compulsory secondary education is a requirement to access post-secondary education, and the possibility of continuing education.

PCPI aims to encourage students to stay in the school system and offer them an alternative way of obtaining an education certificate, which at the same time eases their access to the labour market and other education pathways. It also represents an opportunity for people to learn and acquire skills depending on their individual family, personal and professional contexts.

PCPI provides the necessary education and training to develop professional skills and support inclusion in the workforce. It offers the opportunity of obtaining the diploma in compulsory secondary education and access to middle level training cycles; this improves their education and training throughout life.

#### 7.7.3.5. *Tools/policy instruments*

The two most important regulations of PCPI are:

- (a) Organic Law 2/2006 of 3 May on education (Head of State, 2006) is the basic regulation for the general organisation of the Spanish non-university education system;
- (b) Royal Decree 1538/2006 of 15 December establishing the general organisation of vocational training in the education system (Real Decreto 1538/2006, de 15 de diciembre; BOE No 3 of 3 January 2007).

In addition to these regulations, in 2008 the Ministry of Education and the Autonomous Communities approved the Plan for the reduction of early school leaving (*plan para reducir el abandono escolar*), aimed at reducing the still high early school leaving rates. In 2010 the Cabinet approved the education action plan for 2010/11. This comprises a set of measures to promote educational success, aid employability and entrance into the labour market, and increase the attractiveness of VET. Measure include increasing flexibility of access to VET cycles for students without the certificate of compulsory education, improving permeability between educational levels, and reinforcing the role of information and guidance. These measures are also part of a wider policy strategy, 'strategy for a sustainable economy', to revitalise the Spanish economy and steer it towards a more sustainable pattern of economic activity.

Funds for IVET come from public sources (Ministry of Education, Autonomous Communities and, to a lesser extent, EU social funds) and from private sources (companies and families). However, each region (Autonomous Community) is in charge of implementing and managing education policies. Within their disposable funds, Autonomous Communities have the freedom to manage and allocate funds based on their needs and geographic circumstances.

#### 7.7.3.6. *Evidence for effectiveness*

There is no formal evaluation of (nor plans to evaluate) the outcomes of this policy which was introduced in 2007/08. Early school leaving in Spain was 28.4% in 2010, one of the highest in the EU, but has declined 3.5 percentage points compared to 2008. These results are suggestive of the start of a continuous decreasing trend, but cannot be attributed to the PCPI programme alone. Nonetheless, the observed increase in diplomas in compulsory secondary education in recent years appears to have had a significant effect on reducing the Spanish dropout rate (*estrategia de educación y formación 2020*).

Comisiones Obreras, one of the biggest Trade Unions in Spain, reported that the supply of these programmes is clearly insufficient, as still a high proportion of young people do not finish compulsory education and could have enrolled in a

PCPI programme. Comisiones Obreras believes that besides the lack of human and material resources, there has been a lack of dissemination of information on these programmes and inadequate or sometimes non-existent guidance of students and families regarding their existence and purpose. There are no specific support/training programmes for teachers who work with students with special needs due to their difficult socioeconomic backgrounds (Sáenz Almeida et al., 2010).

#### 7.7.3.7. *Wider outcomes*

The principles/aims of this policy are to:

- (a) offer quality and equity to ensure equal opportunities;
- (b) provide alternatives to people who, depending on their circumstances, may have more social, education or labour integration difficulties;
- (c) offer flexibility by responding to the needs and demands of individuals and changes in their social and labour circumstances;
- (d) share educational responsibility between the education authorities, service community, business community and the students themselves. To this end, the Ministry of Education defines and coordinates the offer directly or through agreements, arrangements or grants to local authorities, professional associations, NGOs and other business entities.

#### 7.7.4. **Conclusion**

The level of early school leaving in Spain is among the highest in the EU, which is especially problematic given that today's labour market is becoming very demanding and increasingly needs people with higher levels of educational qualifications. As a result, educational policies in Spain have focused on strategies to reduce early dropouts, especially since the start of the economic crisis and the consequent increasing unemployment levels, reaching just over 24% and over 50% among the young population in 2012.

One of the policies to reduce early dropouts has been PCPIs. These programmes are geared towards students at high risk of leaving school before they have finished compulsory education. The main goal is to keep students engaged so that they can at least get some form of educational certificate and, if possible, to get their diploma in compulsory secondary education. These programmes offer a more pragmatic approach than the classic classroom curricula (such as using tools like workshops) to keep students engaged. They are developed in a flexible way as to adapt to students' personal and social circumstances, and they provide more personalised support thanks to small class sizes.

With PCPI programmes, the government aims to ensure equal opportunities for all by giving students an alternative for staying at school and obtaining some formal qualification. This addresses the concern that, without official qualification, students (who already might be from a low socioeconomic background) would probably struggle to find a job and could get trapped in poverty and social exclusion. This is especially the case in a difficult economic climate.

Although there is apparently no official government evaluation of these programmes, trade unions seemed to believe that they are a key strategy to reduce the number of people without a professional qualification. It appears that the potential in these programmes has not yet been fully exploited and government should focus on making people aware of the opportunities they offer.

## 7.8. Summary

An aim of the case studies was to provide a more in-depth look at policy initiatives to increase IVET attractiveness while showing how the country context affects policy actions. This final section looks across the case studies to draw themes and possible lessons about what approaches appear to be working and why.

### 7.8.1. Mixed evidence on effectiveness

Hard evidence for the success of these initiatives – ‘what works’ – is not always available. The extent of evaluation or evidence brought to bear is mixed. Germany stands out as carrying out formal evaluations of both of the initiatives discussed. Further, the educational chains initiative was partly shaped by lessons learned from evaluations of other programmes. Some countries can support claims of success with hard evidence: for example the case of the NFQ in Ireland and skills competitions in Finland. These same initiatives have also used implementation studies, designed to identify lessons learned and any improvements needed. In Finland the Ministry of Education supports independent research about understanding vocational competence carried out in the context of skills competitions. Ireland’s national skills strategy produced a database, which is used as a policy-making tool. It appears to be fit for purpose and demonstrates ‘proof of concept’. Evaluation of the remaining initiatives is based on more informal, sometimes anecdotal, evidence, although Denmark plans formal evaluation of the Quality patrol project. In Finland and the Czech Republic, campaigns stand out in this regard, as does the Spanish case where no evaluation has been carried out or is planned.

Many of the initiatives discussed have multiple strands, the effects of some of which might be easier to assess than others. For instance, it is nearly always

possible to gather enrolment rates for a programme, and therefore to track implementation and uptake, but it may be more difficult to identify effects that can be confidently attributed to a single policy or activity. This is a challenge that evaluators often face and the difficulty of evaluating complex interventions needs to be acknowledged.

### **7.8.2. Wide range of targets**

A second observation is the wide range of stakeholders that the initiatives target. Most target multiple stakeholders – both institutions and individuals – a reflection perhaps of various actors engaged in education as a whole. Most initiatives are specifically directed at young people who are at or near the stage of upper secondary education and are at the point of making choices about education pathways. Employers are also a main target, especially where employer engagement is weak.

### **7.8.3. Mix of policy instruments for initiatives**

The initiatives discussed use a range of policy instruments or levers, including mandates, inducements, capacity building, hortatory and deliberative change. The first three can be considered as ‘hard’ methods in comparison to the last two. A single initiative may make use of several instruments.

Mandates (or use of contracts) are evident in several instances and set up rules for compliance: NFQ in Ireland; TrainingPlus in Germany; and Quality patrol in Denmark. Spain’s PCPI is also legislated but the Autonomous Communities have leeway as to implementation, resulting in variations in how the programme is delivered.

Both of the German initiatives, the skills competitions in Finland, and the Czech Republic’s initiative to engage employers in vocational education adopt inducement-type strategies in providing funding in return for certain actions.

Initiatives that support capacity building, financial investment that is expected to show benefits over the longer term, are also employed. Examples are both of the initiatives in Ireland, skills competitions (Finland), TrainingPlus (Germany), some instances of the employer engagement initiative (the Czech Republic) and the Quality patrol (Denmark).

The campaigns initiated in Finland and the Czech Republic are essentially hortatory tools aimed at encouraging individuals to take action. This type of initiative assumes that the targeted stakeholders are motivated by images, symbols or values. Sometimes attention is paid to the design of the campaign, for instance to identify a ‘messenger’ that is most likely to appeal to a particular target audience.

Many of the initiatives rely on voluntary participation (campaigns certainly do), and all depend on collaboration among different actors. Voluntary or 'deliberative change' processes may be more successful in countries where social partnership arrangements are particularly strong (such as Germany and Finland).

#### **7.8.4. Coordinated strategic planning**

Coordinated, strategic planning among government agencies and social partners appears to contribute to complementarity among the initiatives discussed. Germany and Finland are clear examples: they have strong social partnership arrangements and contribute to the effort. For example, in skills competitions costs are shared among the government, employers, and VET schools sending competitors. Germany and Finland also have structural alignments that support coordination; the Skills Finland board is always jointly chaired by individuals from the Ministry and FNBE). The initiatives are discussed in the context of European-wide priorities both in vocational education and, in the case of the German TrainingPlus, the Bologna process.

In both countries the examples relate to one another and to the development of what are, arguably, already successful, attractive systems. Germany and Finland are fine-tuning, rather than building. In Germany, the two initiatives target specific students at two ends of the dual system: those who have difficulties entering it and high achievers who are deciding between IVET and higher education. In Finland, the complementarity between support for skills competitions and the mandated skills demonstrations as the assessment model for vocational education is evident.

Another factor perhaps working in their favour is that both Germany and Finland have fared reasonably well in the economic crisis of recent years, providing a more stable environment than other countries discussed here.

It appears from these two studies that social partnership is crucial; this observation is certainly not new. Initiatives in Spain and the Czech Republic are also tied to national strategies, planning or legislation although decentralisation led to variation in programme implementation. It can be argued that this enabled the programmes to be adapted to local needs but the initial vision may be compromised and evaluation becomes even more complicated.

#### **7.8.5. VET, and its image, susceptible to change**

Significant changes in a country can affect the status and image of VET. The obvious example is Ireland, which experienced the shock of economic boom followed by a sharp decline. To cope with this downturn it has become more flexible in division of responsibilities among social partners. In times of downturn, it may be more difficult for employers to provide apprenticeships, thus putting a

strain on the social partnership. Stability can be provided if the government steps in to compensate for reduced employer involvement, but this can only happen if it has some capacity in the first place. This requires investment in sufficient, up-to-date provision in better times.

Germany and Finland, with more stability during the economic crisis, could still rely on social partnerships working collectively, even though the German dual system has shown some signs of strain in terms of providing placements.

The Czech Republic provides an example of effects of political change that can create new challenges. Under communist rule, employers were engaged in a centralised way because many industries were nationalised. As the labour market restructured, and employers were focused on activities in line with restructuring, their traditional role changed; social partnerships eroded. Both of the initiatives discussed involved rebuilding the relationship between employers and vocational education.

## CHAPTER 8.

# Next steps

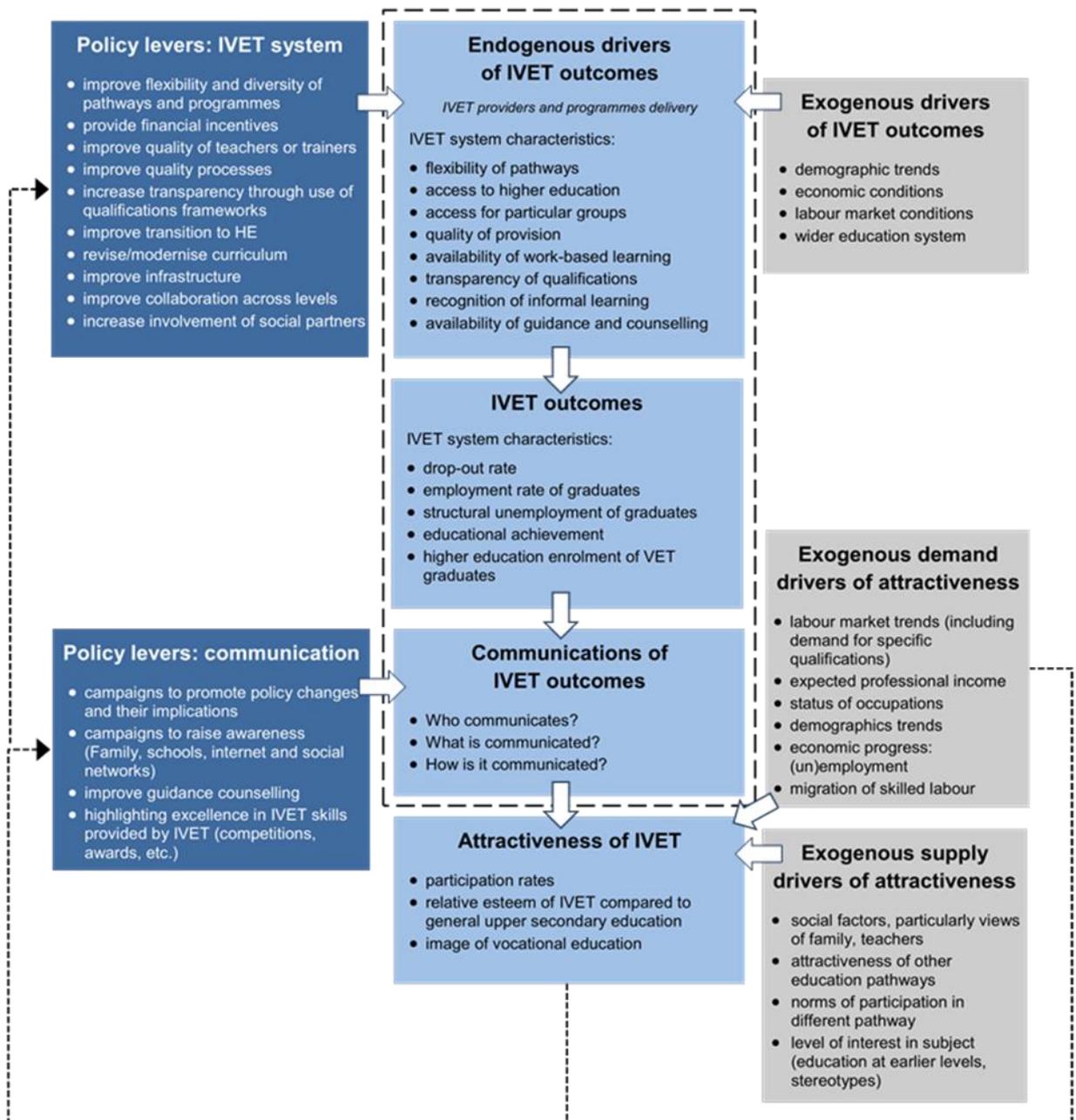
Using the main findings of the study, as in the executive summary, this chapter outlines implications for the conceptual framework of IVET attractiveness developed for this study and potential areas for further research. In the final section, it draws some conclusions on common strategic objectives of European cooperation on modernising VET for the period 2011-20 agreed in 2010 in Bruges.

### 8.1. Implications for conceptual framework

Working around the conceptual framework, there are several areas where the study offers insights on the relative importance of different factors. However, in other areas lack of data has made developing such insights challenging. Starting at the end point of the framework, with the attractiveness of IVET, three possible indicators have been identified. There are issues with all three. They are not correlated with one another, reflecting the fact that they represent different understandings of attractiveness. However, they offer measures of attractiveness comparable across countries, and provide an illustration of the picture across Europe. Suggestions are made below about how the Eurobarometer survey could be developed to offer better data on attractiveness for future use.

Working backwards, information on communication of IVET outcomes is limited, partly because the IVET outcome data are limited. However, some lessons from the campaign initiatives are identified, and studied in depth in the case studies, as are insights from the behaviour change literature. For example, it seems that students and those working in the relevant field are typically used as 'messengers' in the communication of information about IVET in campaigns, perhaps reflecting the desirability of both 'similarity' and 'authority'. Eurobarometer data suggest that routes such as the Internet and social media might be more relevant to young people than TV or radio in communicating information, and that influential figures, notably the family, should be considered. The questions laid out in the conceptual framework remain relevant in the context of the study findings.

Figure 75. Conceptual framework around IVET attractiveness



Source: RAND Europe and SKOPE.

Limited data are available on IVET outcomes, hence it is difficult to link the quality of IVET as measured by the outcomes observed to the attractiveness of IVET. Those indicators on which we have been able to gather data do not appear to be

correlated to our measures of attractiveness. This is an area that warrants further investigation when more relevant data become available across countries.

More information is available on some of the exogenous supply drivers of attractiveness, primarily from the two sets of survey data, but also from observed trends in participation. The findings suggest that the factors listed in the framework appear to be some of the most important influences on IVET attractiveness in this area, and that this area is important in developing a full understanding of IVET attractiveness. In particular, comparison of IVET to other educational pathways when considering its attractiveness is shown to be significant.

Looking at exogenous demand drivers of attractiveness, it has proved difficult to compare directly some of the factors ascribed to IVET attractiveness, since these relationships are likely to be complex. It was, however, possible to consider the impact of some of these factors on IVET attractiveness. Data suggest that economic conditions, if they affect expenditure on vocational education, have some impact on attractiveness, and that availability of employment in specific job categories also has an impact, perhaps as a result of the relative status of these occupations. Employment rates are not found to be correlated with IVET attractiveness, though survey data show that the perceived likelihood of finding a job is an important consideration for young people when selecting an education pathway. Many of the exogenous drivers of IVET outcomes are the same as the exogenous drivers of attractiveness, though they may influence IVET attractiveness in different ways. This complex and multifaceted interaction, along with the limited data available, may partially explain the limited success of the study in understanding the detailed relationship of these factors with attractiveness; this warrants further investigation. However, our analysis suggests that these remain important factors to understand in investigating attractiveness; inclusion in the conceptual framework is appropriate.

It was not feasible to understand and compare the detailed characteristics of the endogenous drivers of IVET outcomes in each country, within the scope of this study. There are so many complex and subtle differences in the education system and the way in which it is delivered in each country that it is difficult to make useful comparisons without using some type of categorisation system. This, in turn, presents challenges, since subtle, but potentially significant differences, are lost. Some analysis of the attractiveness using one particular categorisation system was attempted, and the findings suggested that 'market-led' approaches, such as in the UK and Ireland, were associated with lower levels of attractiveness (both in terms of relative esteem and participation). However, there is already significant literature on what endogenous factors lead to a better and more attractive IVET system; this has been used to formulate the list of factors included in the conceptual framework.

A wide range of policy initiative approaches has been attempted. With each country using a mixed and varying policy approach, and with little data on effectiveness of any of these initiatives, it has proved difficult to assess which of these are most effective in tackling attractiveness, although the case studies shed light on some element of policy initiatives that can work well in certain contexts. The information provided on policy initiatives in the conceptual framework is based on those interventions which are used most frequently, rather than representing an assessment of effectiveness

The evidence from the study supports this framework as an approach to understanding IVET attractiveness. The findings support the need to consider attractiveness as separate from outcomes, and strongly support the need to consider wider exogenous drivers of attractiveness, both in supply and demand. More data are needed to understand fully all the relationships illustrated in the conceptual framework, particularly on the effectiveness of policy initiatives. More data directly from students on their viewpoints would also be valuable.

## 8.2. Further research areas

Potential areas for further research on factors that contribute to IVET attractiveness are discussed in this section.

New data on VET earnings (Cedefop, 2012) could be used to investigate relationships to attractiveness and, in particular, for the three indicators of attractiveness identified in this research: participation, relative esteem, and image of VET. The fact that important outcome data have not been widely available suggests that some outcomes of IVET are not being effectively communicated, which raises the possibility of a mismatch between the reality and perceptions of IVET outcomes.

The impact of migration on IVET attractiveness is difficult to analyse but may affect attractiveness in several ways. An influx of young people with high skill levels may make IVET less attractive by reducing the level of employment. It may also increase demand for IVET places if the young people in question seek to access education in the country. Migration is a wide and complex issue that incorporates economic, social and cultural elements, meaning that each country is likely to face a unique set of circumstances. However, inward migration is likely to continue and the implications require further detailed investigation.

More research is needed on the impact of initiatives intended to raise attractiveness. Perhaps a surprising finding of the study is the lack of systematic evaluation data to assess whether policies and practices are affecting attractiveness (with some notable exceptions). This is true even for initiatives such

as campaigns, found in nearly every country. Lack of evaluation data hampers the ability to identify endogenous drivers of IVET outcomes.

Students' views on vocational education, and what affects their decision-making, need to be gathered across Europe. Existing sources of information in this regard tend to be second-hand rather than taken directly from this important group of stakeholders. It may prove fruitful to partner with national and international student bodies to design and carry out surveys. Any student survey could improve on the Eurobarometer by including questions about the reasoning behind perceptions and about comparisons to general education.

It may be worth investigating whether a composite indicator of IVET can be developed, though it is probably premature to do so at the moment. A composite indicator should incorporate variables that are known to affect the outcome of interest. This study identifies three measures of attractiveness: participation, relative esteem, and VET image. These measures are not correlated and so represent different elements or understandings of IVET attractiveness. Further research is needed to establish whether combining these separate elements is desirable and how these different elements should be weighted if combined.

While this research identified some significant relationships, more is needed to develop a more robust view of the most important factors for increasing attractiveness. This research has only been able to focus on correlations between attractiveness and a single other variable. More data, taken over several years, would allow researchers to investigate multiple correlations between several potential explanatory variables and a measure of attractiveness. Time-series data would also help distinguish causal effects from simple correlations.

If the Eurobarometer survey is to be used continuously to reflect IVET attractiveness, several modifications and developments could be made to make the data more useful. Two specific improvements would be to include more questions that compare VET to general education and to ask for the reasoning behind perceptions, such as why they would recommend a particular course to students, or why IVET is thought to be attractive or unattractive. These modifications would give a richer data set and build fuller understanding of attractiveness.

### 8.3. Implications for further European cooperation

The results of this research into policy initiatives provide some signposts for progress in Europe following on from the Bruges communiqué<sup>(135)</sup> and the

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<sup>(135)</sup> Council of the European Union and European Commission (2010).

strategic objectives for the period 2011-20. Strategic objectives 1 and 2 concern 'Making IVET an attractive learning option' and 'Fostering the excellence, quality and relevance of both IVET and CVET.' Chapter 6 shows examples of country activity around several policy initiatives, mentioned as short-term deliverables (2011-14) around Objective 1: campaigns and skills competitions aimed at promoting VET attractiveness and excellence; activities to engage young pupils in compulsory education to become acquainted with VET ('try-out' courses at lower secondary level); efforts to improve and expand apprenticeships; enhanced cooperation between VET institutions and enterprises; and progress in quality assurance frameworks. Most countries are engaged in skills competitions and campaigns, and about half mentioned initiatives related to improving quality processes.

Other policy initiatives mentioned here (but not specifically earmarked as short-term deliverables) are related to improving permeability and diversity of pathways and programmes, improving teachers/trainers and teaching, improvements to guidance and counselling, and infrastructure improvements. This study finds evidence of policy activity in all of these areas.

Objectives 3 and 4 focus on 'Enabling flexible access to training and qualifications' and 'Developing a strategic approach to the internationalisation of IVET and CVET.' For objective 3 short-term deliverables, about half of the countries have initiatives on development of qualification frameworks and improvements to guidance and counselling services. About a quarter mentioned efforts in validating non-formal and informal learning. Seven countries specifically mentioned efforts related to promoting transnational mobility (objective 4), which in this analysis is also associated with countries where VET has high esteem relative to general education.

The study did not identify much activity around objective 5, 'Fostering innovation, creativity and entrepreneurship, as well as use of ICT'. This does not mean that there is no action on this objective, only that such action did not feature in the context of this research and its focus on specific measures taken to increase attractiveness of IVET.

Objective 6 is 'Realising inclusive IVET and CVET'. About one-third of countries mention policies related to early school leaving or improving access for specific groups. Some are more focused on preventing early school leaving (school dropouts in Cyprus and 'at risk' in Luxembourg and Spain), while others focus on access (Roma in Slovakia). The Spanish case study in Chapter 7 speaks directly to a short-term deliverable: develop new methods to support the participation of 'at risk' groups.

There is also evidence of measures related to the transversal objectives, in particular 'Greater involvement of VET stakeholders and greater visibility for the

achievements of European cooperation in VET'. This is evident in initiatives related to campaigns.

The results of the study also highlight some issues that are relevant for carrying the Bruges agenda forward. First is the conception of attractiveness itself. This study reinforces the view that attractiveness is a complex concept, partly based on subjective perceptions and factors that are country-sensitive, such as the composition of the labour market. It can be measured, although not precisely, and should be considered in relation to general education. This complexity needs to be understood and will always affect efforts to delineate clear relationships to factors that can enhance attractiveness.

A second issue concerns the state of evidence for policy actions, which is often based on informal assessment rather than rigorous research. This is the case even for information campaigns, which are found in most countries. While some countries evaluate policies and programmes as a matter of course, others may lack the resources or capacity to do so. Whatever the reason, more emphasis could be placed on systematic evaluation, in particular on EU promoted strategies (skills competitions, campaigns, increasing permeability of pathways) and their effects on enhancing attractiveness.

Lack of information directly from students across Europe also merits attention at European level. Student views are important for developing VET programmes that respond to their needs and for understanding what drives their actions and decision-making with regard to vocational education. While some countries conduct student surveys, a Europe-wide survey would prove useful to gain a more comprehensive perspective, even though the diversity of VET across countries poses challenges for design and interpretation. Changes to future Eurobarometer surveys could also help clarify the reasoning behind perceptions of VET.

Although data on VET are improving and new information on earnings and other VET benefits is particularly welcome (Cedefop, 2012), it is less clear how this information is communicated, especially to students and families. This can be advanced by rigorous study of campaigns, perhaps including elements from the behavioural change literature, to understand how best to communicate the outcomes of IVET to students, families, employers and other stakeholders.

## List of abbreviations

BA	Bundesagentur für Arbeit The Federal Employment Agency
BIBB	Bundesinstitut für Berufsbildung Bonn Federal Institute for vocational education and training
BMBF	Bundesministerium für Bildung und Forschung Federal Ministry of Education and Research
BMWi	Bundesministerium für Wirtschaft und Technologie Federal Ministry of Economics and Technology
CC.OO.	Comisiones Obreras The Workers' Commissions
CVET	continuing vocational education and training
CVTS	continuous vocational training survey
DGB	Deutscher Gewerkschaftsbund Confederation of German trade unions
ECVET	European credit system for vocational education and training
EGFSN	Expert group on future skills needs
EQAVET	European quality assurance reference framework for vocational education and training
EQF	European qualifications framework
ESF	European Social Funds
EU-LFS	European labour force survey
FÁS	Training and Employment Authority.
FET	further education and training
FETAC	Further Education and Training Awards Council
FNBE	Finnish National Board of Education
Forfás	policy advisory board for enterprise, trade, science, technology and innovation
GDP	gross domestic product
GNP	gross national product
HET	higher education and training
HETAC	Higher Education and Training Awards Council
INE	Instituto Nacional de Estadística National Institute of Statistics
ISCED	International standard classification of education
IVET	initial vocational education and training
NFQ	national framework of qualifications
NQAI	National Qualifications Authority of Ireland
NSS	national skills strategy
PCPI	initial professional qualifications programmes
PLC	Post-leaving certificates

UOE	Unesco-UIS /OECD/Eurostat Unesco: United Nation educational, scientific and cultural organisation) UIS: Unesco Institute of Statistics OECD: Organisation for economic cooperation and development) Eurostat: Statistical office of the European Communities
VET	vocational education and training
VEC	Vocational education committee
MŠMT	Ministerstva školství, mládeže a tělovýchovy Czech Ministry of Education, Youth and Sports (MEYS)

### Country codes

BE	Belgium
BG	Bulgaria
CZ	Czech Republic
DK	Denmark
DE	Germany
EE	Estonia
IE	Ireland
EL	Greece
ES	Spain
FR	France
IT	Italy
CY	Cyprus
LV	Latvia
LT	Lithuania
LU	Luxembourg
HU	Hungary
MT	Malta

NL	Netherlands
AT	Austria
PL	Poland
PT	Portugal
RO	Romania
SI	Slovenia
SK	Slovakia
FI	Finland
SE	Sweden
UK	United Kingdom

AU	Australia
IS	Iceland
NO	Norway
KR	South Korea
CH	Switzerland

## References

[All links accessed on 30.8.2013]

- Aarkrog, V. (2005). Learning in the workplace and the significance of school-based education: a study of learning in a Danish vocational and training programme. *International journal of lifelong education*, Vol. 24, No 2, pp. 137-147. <http://www.tandfonline.com/doi/pdf/10.1080/02601370500056268>.
- Ajzen, I. (1987). Attitudes, traits, and actions: dispositional prediction of behaviour in personality and social psychology. *Advances in experimental social psychology*, Vol. 20, pp. 1-63. [http://dx.doi.org/10.1016/S0065-2601\(08\)60411-6](http://dx.doi.org/10.1016/S0065-2601(08)60411-6).
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational behaviour and human decision processes*, December 1991, Vol. 50, No 2. [http://dx.doi.org/10.1016/0749-5978\(91\)90020-T](http://dx.doi.org/10.1016/0749-5978(91)90020-T).
- AusbildungPlus (2011). *AusbildungPlus in Zahlen. Trends und Analysen [Training-Plus in numbers: trends and analyses]*. Bonn: BIBB. [http://www.ausbildungplus.de/files/aplus\\_2011\\_web.pdf](http://www.ausbildungplus.de/files/aplus_2011_web.pdf).
- AusbildungPlus (2012a). *Modelle dualer Studiengänge [Models of dual university courses]*. <http://www.ausbildungplus.de/html/63.php> [accessed: 5.8.2013].
- AusbildungPlus (2012b). *Erfahrungsberichte zu dualen Studiengängen [Field reports about dual university courses]*. <http://www.ausbildungplus.de/html/3426.php>.
- Autor, D.H. et al. (2006). The polarisation of the US labour market. *American economic review*, May 2006, Vol. 96, No 2, pp. 189-194. <http://dx.doi.org/10.1257/000282806777212620>.
- Autorengruppe Bildungsberichterstattung (2012). *Bildung in Deutschland 2012: Ein indikatorengestützter Bericht mit einer Analyse zur kulturellen Bildung im Lebenslauf [Education in Germany 2012: an indicator-based report, including an analysis on cultural education]*. Bielefeld: Bertelsmann.
- Bell, D.N.F.; Blanchflower, D.G. (2011). *Youth unemployment in Europe and the United States*. Bonn: IZA, Institute for the Study of Labour. IZA discussion paper; No 5673. <http://ftp.iza.org/dp5673.pdf>.
- Berry-Lound, D. et al. (2012). *Review of research and evaluation into the impact of competitions on development of excellence in vocational learning and apprenticeships*. Horsham: Host Policy Research.
- BMBF (2010). *Bekanntmachung des Bundesministeriums für Bildung und Forschung von Richtlinien für die Förderung der Berufsorientierung in überbetrieblichen und vergleichbaren Berufsbildungsstätten vom 1. Juni 2010 [Federal Ministry of Education and Research announcement of 1 June 2010 on guidelines for promoting vocational guidance in inter-company training centres and similar vocational training institutions]*. Bonn: BMBF – Bundesministerium für Bildung und Forschung.

- BMBF (2012). *Berufsbildungsbericht 2012 [Vocational training report 2012]*. Bonn: BMBF– Bundesministerium für Bildung und Forschung. [http://www.bmbf.de/pub/bbb\\_2012.pdf](http://www.bmbf.de/pub/bbb_2012.pdf).
- BMWi (2012a). *Ausgewählte Daten zur wirtschaftlichen Lage [Selected data on the current economic climate], July 2012*. Berlin: Federal Ministry of Economics and Technology. <http://www.bmwi.de/BMWi/Redaktion/PDF/W/wirtschaftliche-lage-brd-07-2012,property=pdf,bereich=bmwi2012,sprache=de,rwb=true.pdf>.
- BMWi (2012b). *The economic situation in the Federal Republic of Germany in July 2012*. Press release, 9.7.2012. <http://www.bmwi.de/EN/Press/press-releases,did=501340.html>.
- Brunello, G. (2009). *The effect of economic downturns on apprenticeships and initial workplace training: a review of the evidence*. Paris: OECD Publishing. <http://www.oecd.org/education/skills-beyond-school/43141035.pdf>.
- Bundesagentur für Arbeit (2010). *Vergabeunterlagen zur Öffentlichen Ausschreibung von Berufseinstiegsbegleitung-Bildungsketten (BerEb-Bk) nach der Richtlinie zur Durchführung des Sonderprogramms Berufseinstiegsbegleitung im Rahmen der BMBF-Initiative Abschluss und Anschluss – Bildungsketten bis zum Ausbildungsabschluss. [Award documents of the tender for educational programmes accompanying labour market entry according to the directive concerning the special programme labour market entry in the framework of the BMBF initiative, Graduation and inclusion – educational chains up to degree completion]*. [http://www.bmbf.de/pubRD/vergabeunterlagen\\_ausschreibung\\_bildungsketten.pdf](http://www.bmbf.de/pubRD/vergabeunterlagen_ausschreibung_bildungsketten.pdf).
- Bundesagentur für Arbeit (2012). *Der Arbeitsmarkt im Juni 2012: Anzeichen für eine schwächere Entwicklung [The labour market in June 2012: first signs of a weaker development]*. *Presse Info*, No 28, 28.6.2012. [http://www.arbeitsagentur.de/nn\\_27030/zentraler-Content/Pressemeldungen/2012/Presse-12-028.html](http://www.arbeitsagentur.de/nn_27030/zentraler-Content/Pressemeldungen/2012/Presse-12-028.html).
- Cedefop (2004). *Towards a history of vocational education and training (VET) in Europe in a comparative perspective. Proceedings of the first international conference, Florence, October 2002*. Luxembourg: Publications Office. [http://www.cedefop.europa.eu/EN/Files/5153\\_1\\_en.pdf](http://www.cedefop.europa.eu/EN/Files/5153_1_en.pdf).
- Cedefop (2007). *Zooming in on 2010: reassessing vocational education and training*. Luxembourg: Publications Office. [http://www.cedefop.europa.eu/EN/Files/4060\\_en.pdf](http://www.cedefop.europa.eu/EN/Files/4060_en.pdf).
- Cedefop (2009a). *Continuity, consolidation and change: towards a European era of vocational education and training*. Luxembourg: Publications Office. Cedefop Reference series; No 73. [http://www.cedefop.europa.eu/EN/Files/3055\\_en.pdf](http://www.cedefop.europa.eu/EN/Files/3055_en.pdf).
- Cedefop (2009b). *Initial vocational education and training (IVET) in Europe: review*. Thessaloniki: Cedefop. [http://www.cedefop.europa.eu/EN/Files/IVET\\_Review\\_08.pdf](http://www.cedefop.europa.eu/EN/Files/IVET_Review_08.pdf).

- Cedefop (2009c). *Modernising vocational education and training: fourth report on vocational training research in Europe: synthesis report*. Luxembourg: Publications Office. Cedefop Reference series.  
[http://www.cedefop.europa.eu/EN/Files/3043beta\\_en.pdf](http://www.cedefop.europa.eu/EN/Files/3043beta_en.pdf).
- Cedefop (2010a). *A bridge to the future: European policy for vocational education and training: 2002-10*. Luxembourg: Publications Office. Cedefop Reference series. [http://www.cedefop.europa.eu/EN/Files/3058\\_en.pdf](http://www.cedefop.europa.eu/EN/Files/3058_en.pdf).
- Cedefop (2010b). *Skills supply and demand in Europe: medium-term forecast up to 2020*. Luxembourg: Publications Office.  
[http://www.cedefop.europa.eu/EN/Files/3052\\_en.pdf](http://www.cedefop.europa.eu/EN/Files/3052_en.pdf).
- Cedefop (2011a). *Vocational education and training is good for you: the social benefits of VET for individuals*. Luxembourg: Publications Office. Cedefop research paper; No 17.  
[http://www.cedefop.europa.eu/EN/Files/5517\\_en.pdf](http://www.cedefop.europa.eu/EN/Files/5517_en.pdf).
- Cedefop (2011b). *Labour market polarisation and elementary occupations in Europe: blip or long-term trend?* Luxembourg: Publications Office. Cedefop research paper; No 9. [http://www.cedefop.europa.eu/EN/Files/5509\\_en.pdf](http://www.cedefop.europa.eu/EN/Files/5509_en.pdf).
- Cedefop (2012). *From education to working life: the labour market outcomes of vocational education and training*. Luxembourg: Publications Office.  
[http://www.cedefop.europa.eu/EN/Files/3063\\_en.pdf](http://www.cedefop.europa.eu/EN/Files/3063_en.pdf).
- Cedefop et al. (2004). *Vocational education and training: key to the future. Lisbon-Copenhagen-Maastricht: mobilising for 2010*. Luxembourg: Publications Office. [http://www.cedefop.europa.eu/EN/Files/4041\\_en.pdf](http://www.cedefop.europa.eu/EN/Files/4041_en.pdf).
- Cedefop ReferNet Czech Republic (2011). *VET in Europe: country report Czech Republic*. [http://libserver.cedefop.europa.eu/vetelib/2011/2011\\_CR\\_CZ.pdf](http://libserver.cedefop.europa.eu/vetelib/2011/2011_CR_CZ.pdf).
- Cedefop ReferNet Denmark (2010). *A bridge to the future: European policy for vocational education and training 2002-10: national policy report: Denmark*. [http://libserver.cedefop.europa.eu/vetelib/2010/vetpolicy/2010\\_NPR\\_DK.pdf](http://libserver.cedefop.europa.eu/vetelib/2010/vetpolicy/2010_NPR_DK.pdf).
- Cedefop ReferNet Denmark (2011). *VET in Europe: country report Denmark*. [http://libserver.cedefop.europa.eu/vetelib/2011/2011\\_CR\\_DK.pdf](http://libserver.cedefop.europa.eu/vetelib/2011/2011_CR_DK.pdf).
- Cedefop ReferNet Finland (2011). *VET in Europe: country report Finland*. [http://libserver.cedefop.europa.eu/vetelib/2011/2011\\_CR\\_FI.pdf](http://libserver.cedefop.europa.eu/vetelib/2011/2011_CR_FI.pdf).
- Cedefop ReferNet Germany (2011). *VET in Europe: country report Germany*. [http://libserver.cedefop.europa.eu/vetelib/2011/2011\\_CR\\_DE.pdf](http://libserver.cedefop.europa.eu/vetelib/2011/2011_CR_DE.pdf).
- Conefrey, T. (2011). *Unemployment and labour force participation during the recession*. Dublin: Central Bank of Ireland. Economic letters, 2011/4.  
[http://www.centralbank.ie/publications/Documents/Labour\\_Letter\\_090611\\_Web.pdf](http://www.centralbank.ie/publications/Documents/Labour_Letter_090611_Web.pdf).
- Council of the European Union; European Commission (2004). *The Maastricht communiqué*.  
[http://libserver.cedefop.europa.eu/vetelib/eu/pub/commission/dgeac/2004\\_0018\\_en.pdf](http://libserver.cedefop.europa.eu/vetelib/eu/pub/commission/dgeac/2004_0018_en.pdf).

- Council of the European Union; European Commission (2006). *The Helsinki communiqué*.  
[http://ec.europa.eu/education/policies/2010/doc/helsinkicom\\_en.pdf](http://ec.europa.eu/education/policies/2010/doc/helsinkicom_en.pdf).
- Council of the European Union; European Commission (2008). *The Bordeaux communiqué*. [http://ec.europa.eu/education/lifelong-learning-policy/doc/bordeaux\\_en.pdf](http://ec.europa.eu/education/lifelong-learning-policy/doc/bordeaux_en.pdf).
- Council of the European Union; European Commission (2010). *The Bruges communiqué*. <http://libserver.cedefop.europa.eu/vetelib/2010/75928.pdf>.
- CSO (2010). *Quarterly national household survey: educational attainment, quarter 2, 2000 to quarter 2, 2010*. Dublin: Central Statistics Office. Release: labour market and earnings: labour market, 10.12.2010.  
[http://www.cso.ie/en/media/csoie/releasespublications/documents/labourmarket/2010/qnhs\\_educationalattainmentq202-q210.pdf](http://www.cso.ie/en/media/csoie/releasespublications/documents/labourmarket/2010/qnhs_educationalattainmentq202-q210.pdf).
- CSO (2011). *Quarterly national household survey: educational attainment thematic report 2011*. Dublin: Central Statistics Office. Release: labour market and earnings: labour market, 14.12.2011.  
<http://www.cso.ie/en/media/csoie/releasespublications/documents/education/2011/educationalattainment2011.pdf>.
- CSO (2012a). *Live register, May 2012*. Dublin: Central Statistics Office. Release: labour market and earnings: labour market, 30.5.2012.  
[http://www.cso.ie/en/media/csoie/releasespublications/documents/labourmarket/2012/lreg\\_may2012.pdf](http://www.cso.ie/en/media/csoie/releasespublications/documents/labourmarket/2012/lreg_may2012.pdf).
- CSO (2012b). *Quarterly national household survey: quarter 1, 2012*. Dublin: Central Statistics Office. Release: labour market and earnings: labour market, 7.6.2012.  
[http://www.cso.ie/en/media/csoie/releasespublications/documents/labourmarket/2012/qnhs\\_q12012.pdf](http://www.cso.ie/en/media/csoie/releasespublications/documents/labourmarket/2012/qnhs_q12012.pdf).
- Czesaná, V. et al. (2007). *Achieving the Lisbon goal: the contribution of vocational education and training system. Country report: Czech Republic*. London: Qualifications and Curriculum Authority.
- DES – Department of Education and Skills (2011). *Organisation of the education system in Ireland 2009/10*. Brussels: Eurydice.  
<http://estudandoeducacao.files.wordpress.com/2011/05/irlanda.pdf>.
- DGB (2010). DGB fordert Programm zum Abbau von Ausbildungslosigkeit [The confederation of German trade unions demands a programme initiative to reduce the mismatch between demand and vocational training opportunities]. *Pressemitteilungen 102 [Press release 102]*, 16.6.2010.  
[http://www.dgb.de/presse/++co++d76cd08e-7948-11df-6571-00188b4dc422/@@index.html?search\\_text=bildungsketten&x=0&y=0](http://www.dgb.de/presse/++co++d76cd08e-7948-11df-6571-00188b4dc422/@@index.html?search_text=bildungsketten&x=0&y=0).
- Dolan, P. et al (2010). *Mindspace: influencing behaviour through public policy*. London: Institute for Government, Cabinet Office.  
<http://www.instituteforgovernment.org.uk/sites/default/files/publications/MINDSPACE.pdf> [accessed 2.1.2013].

- Eerola, T. (2010). Diversity of vocational skills competitions. In: Kaloinen, S. et al. (eds). *Competitions for everyone*. Hämeenlinna: HAMK, University of Applied Sciences.
- EGFSN (2007). *Tomorrow's skills: towards a national skills strategy: 5th report*. Dublin: Expert group on future skills needs.  
[http://www.skillsstrategy.ie/pdfs/egfsn070306\\_skills\\_strategy\\_report\\_webopt.pdf](http://www.skillsstrategy.ie/pdfs/egfsn070306_skills_strategy_report_webopt.pdf).
- EGFSN (2010). *Monitoring Ireland's skills supply: trends in education and training outputs (summary)*. Dublin: Expert group on future skills needs.  
[http://www.forfas.ie/media/egfsn100720-monitoring\\_irelands\\_skills\\_supply\\_2010\\_summary.pdf](http://www.forfas.ie/media/egfsn100720-monitoring_irelands_skills_supply_2010_summary.pdf).
- EGFSN (2011). *Monitoring Ireland's skills supply: trends in education and training outputs*. Dublin: Expert group on future skills needs.  
[http://www.forfas.ie/media/egfsn110803-Monitoring\\_Skills\\_Supply\\_2011.pdf](http://www.forfas.ie/media/egfsn110803-Monitoring_Skills_Supply_2011.pdf).
- EGFSN (2012a). *Key skills for enterprise to trade internationally*. Dublin: Expert group on future skills needs.  
[http://www.skillsireland.ie/media/EGFSB22062012-Key\\_Skills\\_for\\_Enterprise\\_to\\_Trade\\_Internationally.pdf](http://www.skillsireland.ie/media/EGFSB22062012-Key_Skills_for_Enterprise_to_Trade_Internationally.pdf).
- EGFSN (2012b). *Monitoring Ireland's skills supply: trends in education and training outputs*. Dublin: Expert group on future skills needs.  
<http://www.fas.ie/NR/rdonlyres/896B9269-D80E-419D-8BA8-D771549692F1/2616/MonitoringIrelandsSkillsSupplyJuly2012.pdf>.
- EGFSN (2012c). *National skills bulletin 2012*. Dublin: Expert group on future skills needs. <http://www.skillsireland.ie/media/EGFSN25072012-National-Skills-Bulletin-Publication.pdf>.
- EGFSN (2012d). *The expert group on future skills needs statement of activity 2011*. Dublin: Expert group on future skills needs.  
[http://www.skillsireland.ie/media/EGFSN020212-Statement\\_of\\_activity-publication.pdf](http://www.skillsireland.ie/media/EGFSN020212-Statement_of_activity-publication.pdf).
- European Commission (2005). *Vocational training*. Special Eurobarometer; No 216.  
[http://www.adec.fr/files\\_upload/documentation/200607181042250.eurobarometer\\_vocational\\_training\\_2005.pdf](http://www.adec.fr/files_upload/documentation/200607181042250.eurobarometer_vocational_training_2005.pdf).
- European Commission (2011a). *Attitudes towards vocational education and training*. Special Eurobarometer; No 369.  
[http://ec.europa.eu/public\\_opinion/archives/ebs/ebs\\_369\\_en.pdf](http://ec.europa.eu/public_opinion/archives/ebs/ebs_369_en.pdf).
- European Commission (2011b). *Youth on the move: analytical report*. Flash Eurobarometer; No 319b. [http://ec.europa.eu/public\\_opinion/flash/fl\\_319b\\_en.pdf](http://ec.europa.eu/public_opinion/flash/fl_319b_en.pdf).
- Eurostat (2011). *Unemployment rate by levels of educational attainment*. 2011 Statistics explained.  
[http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php?title=File:Unemployment\\_rate\\_by\\_level\\_of\\_educational\\_attainment,\\_2011\\_\(%25\).png&filetimestamp=20120502102346#file](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Unemployment_rate_by_level_of_educational_attainment,_2011_(%25).png&filetimestamp=20120502102346#file)

- FÁS (2011). *Annual report 2010*. Dublin: Training and Employment Authority.  
<http://www.fas.ie/NR/rdonlyres/0E1ECECB-6A1E-46C3-A43E-146111B99629/0/AnnualReport2010.pdf>.
- FÁS (2012a). *Annual report 2011*. Dublin: Training and Employment Authority.  
<http://www.fas.ie/en/pubdocs/annualreports/FASAnnualReport2011.pdf>.
- FÁS (2012b). *2011 follow-up survey of FÁS participants*. Dublin: Training and Employment Authority.  
<http://www.fas.ie/en/pubdocs/2011FollowUpSurvey.pdf>.
- FETAC (2008). *Implementation and impact of the national framework of qualifications in the further education and training sector*. Dublin: Quality and Qualification Ireland.  
[http://www.fetac.ie/fetac/documents/Impact\\_Study\\_main\\_doc30sep08rd.pdf](http://www.fetac.ie/fetac/documents/Impact_Study_main_doc30sep08rd.pdf).
- FETAC (2010). *Quality assurance for further education and training: policy and guideline for providers, Vol. 3*. Dublin: Quality and Qualification Ireland.  
[http://www.fetac.ie/fetac/documents/Policy\\_and\\_Guidelines\\_on\\_Provider\\_QA\\_v1.3.pdf](http://www.fetac.ie/fetac/documents/Policy_and_Guidelines_on_Provider_QA_v1.3.pdf).
- FETAC (2011). *A common awards system for further education and training*. Dublin: Quality and Qualification Ireland.  
[http://www.fetac.ie/fetac/documents/Common\\_Awards\\_System\\_for\\_FET\\_leaflet.pdf](http://www.fetac.ie/fetac/documents/Common_Awards_System_for_FET_leaflet.pdf).
- Field, S. et al. (2009). *Learning for jobs: the OECD policy review of vocational education and training: initial report*. <http://www.oecd.org/edu/skills-beyond-school/learningforjobscomparativereport.htm>.
- Finnish National Board of Education (2006). *National evaluation data based on skills demonstrations: KOPPI project 2002-07*. Helsinki: Finnish National Board of Education.  
[http://www.oph.fi/download/115526\\_national\\_evaluation\\_data\\_based\\_on\\_vocational\\_skills\\_demonstrations.pdf](http://www.oph.fi/download/115526_national_evaluation_data_based_on_vocational_skills_demonstrations.pdf).
- Fishbein, M.; Ajzen, I. (1975). *Belief, attitude, intention, and behaviour: an introduction to theory and research*. Reading, MA: Addison-Wesley.  
<http://www.people.umass.edu/aizen/f&a1975.html>.
- Forfás (2012). *Annual report 2011*. Dublin: Policy advisory board for enterprise, trade, science, technology and innovation.  
[http://www.forfas.ie/media/Forfas16072012-Annual\\_Report-Eng-Publication.pdf](http://www.forfas.ie/media/Forfas16072012-Annual_Report-Eng-Publication.pdf).
- Forschungskonsortium (2010). *Unterrichtung durch die Bundesregierung: Zwischenbericht 2010 zur Evaluation der Berufseinstiegsbegleitung nach § 421s des Dritten Buches Sozialgesetzbuch [Briefing by the Federal Government: interim 2010 report on the programme accompanying labour market entry according to § 421s of the third book on social security laws]*. Cologne: Bundesanzeiger Verlagsgesellschaft.  
[http://www.jugendsozialarbeit.de/media/raw/1703890\\_Zwischenbericht\\_BerEb.pdf](http://www.jugendsozialarbeit.de/media/raw/1703890_Zwischenbericht_BerEb.pdf).

- Foxall, G.R. (1983). *Consumer choice*. Hong Kong: Macmillan Press Ltd.
- Goeser, J.; Isenmann, M. (2011). *AusbildungPlus Betriebsumfrage 2011 [Vocational education plus: enterprise survey 2011]*. Bonn: BMBF – Bundesinstitut für Berufsbildung.  
[http://www.ausbildungplus.de/files/Auswertung\\_Betriebsumfrage2011.pdf](http://www.ausbildungplus.de/files/Auswertung_Betriebsumfrage2011.pdf).
- Goos, M.; Manning, A. (2007). Lousy jobs and lovely jobs: the rising polarisation of work in Britain. *Review of economics and statistics*, February 2007, Vol. 89, No 1, pp. 118-133. <http://dx.doi.org/10.1162/rest.89.1.118>.
- Goos, M. et al. (2009). Job polarisation in Europe. *American economic review*, May 2009, Vol. 99, No 2, pp. 58-63. <http://dx.doi.org/10.1257/aer.99.2.58>.
- Government of Ireland (1999). *Qualifications (education and training) Act, 1999*. Dublin: Irish Statute Book. Acts of the Oireachtas, No 26/1999.  
<http://www.irishstatutebook.ie/pdf/1999/en.act.1999.0026.pdf>.
- Government of Ireland (2005). *DEIS (delivering equality of opportunity in schools): an action plan for educational inclusion*. Dublin: Department of Education and Science. [http://www.education.ie/en/Publications/Policy-Reports/deis\\_action\\_plan\\_on\\_educational\\_inclusion.pdf](http://www.education.ie/en/Publications/Policy-Reports/deis_action_plan_on_educational_inclusion.pdf).
- Government of Ireland (2006). *Towards 2016: 10-year framework social partnership agreement 2006-15*. Dublin: Stationery Office.  
[http://www.taoiseach.gov.ie/attached\\_files/Pdf%20files/Towards2016PartnershipAgreement.pdf](http://www.taoiseach.gov.ie/attached_files/Pdf%20files/Towards2016PartnershipAgreement.pdf).
- Government of Ireland (2012a). *Action plan for jobs: 2012*. Dublin: Department of Jobs, Enterprise and Innovation.  
<http://www.djei.ie/publications/2012APJ.pdf>.
- Government of Ireland (2012b). *Pathways to work: government policy statement on labour market activation*. Dublin: Government of Ireland.  
<http://www.welfare.ie/en/downloads/pathwaystowork.pdf>.
- Hamburgische Bürgerschaft (2012). Einrichtung einer Jugendberufsagentur in Hamburg [Establishment of a youth consulting service in Hamburg]. *Bürgerschaft der Freien und Hansestadt Hamburg*, 20/4195.  
[http://www.uebergangschuleberuf.de/site/objects/drucksache\\_jugendberufsagentur.pdf](http://www.uebergangschuleberuf.de/site/objects/drucksache_jugendberufsagentur.pdf).
- Head of State (2006). Ley orgánica 2/2006 de 3 de mayo de educación [Organic Law 2/2006 of 3 May on education]. *Boletín Oficial del Estado*, No 106, 4.5.2006. <http://www.boe.es/boe/dias/2006/05/04/pdfs/A17158-17207.pdf>.
- Hellakorpi, S. (2010). The philosophy behind vocational skills competitions. In: Kaloinen, S. et al. (eds). *Competitions for everyone*. Hämeenlinna: HAMK, University of Applied Sciences.
- Hochschule dual (2007). *Duale Studienangebote in Bayern 2007/08 [Dual study programmes in Bavaria 2007/08]*. Munich: Hochschule Bayern.  
[http://backend.hochschule-dual.de/FCK/UserFiles/File/PDF/END\\_Studienfuehrer\\_2007\\_2008.pdf](http://backend.hochschule-dual.de/FCK/UserFiles/File/PDF/END_Studienfuehrer_2007_2008.pdf).

- Initiative Bildungsketten (2012). Hauptschule und Staatssekretär ziehen Bilanz: Berufseinstiegsbegleitung macht sich bezahlt [Secondary modern school and the State secretary conclude: programmes accompanying labour market entry are worthwhile]. *Press conference, 14.3.2012*.  
<http://www.bildungsketten.de/de/1000.php>.
- INE (2010). Proyección de la población de España a largo plazo 2009-2049 [Projection of the development of the Spanish population, 2009-49]. *Notas de Prensa, 28.1.2010*. <http://www.ine.es/prensa/np587.pdf>.
- Kooperationsverbund Jugendsozialarbeit (2010a). Forum 1, Berufseinstiegsbegleitung in der regionalen Förderstruktur [Career support in the regional funding structure]. *Fachtagung Berufseinstiegsbegleitung im Rahmen des Kooperationsverbundes Jugendsozialarbeit [symposium on career support within the framework of the cooperation alliance youth social work], Berlin, 27 October 2010*.  
[http://www.jugendsozialarbeit.de/media/raw/Dokumentation\\_Fachtagung\\_Berufseinstiegsbegleitung\\_2010.pdf](http://www.jugendsozialarbeit.de/media/raw/Dokumentation_Fachtagung_Berufseinstiegsbegleitung_2010.pdf).
- Kooperationsverbund Jugendsozialarbeit (2010b). Forum 2, Berufseinstiegsbegleitung an Hauptschulen [Career support in secondary schools]. *Fachtagung Berufseinstiegsbegleitung im Rahmen des Kooperationsverbundes Jugendsozialarbeit [symposium on career support within the framework of the cooperation alliance youth social work], Berlin, 27 October 2010*.  
[http://www.jugendsozialarbeit.de/media/raw/Dokumentation\\_Fachtagung\\_Berufseinstiegsbegleitung\\_2010.pdf](http://www.jugendsozialarbeit.de/media/raw/Dokumentation_Fachtagung_Berufseinstiegsbegleitung_2010.pdf).
- Kuczera, M. (2010). *Learning for jobs: OECD reviews of vocational education and training: Czech Republic*. Paris: OECD.  
<http://www.oecd.org/czech/44496125.pdf>.
- Kyrö, M. (2012). *International comparisons of some features of the Finnish education and training*. Helsinki: Finnish National Board of Education.  
[http://www.oph.fi/download/141160\\_international\\_comparisons\\_of\\_some\\_features\\_of\\_finnish\\_education\\_and\\_training\\_2011.pdf](http://www.oph.fi/download/141160_international_comparisons_of_some_features_of_finnish_education_and_training_2011.pdf).
- Lankinen, T. (2010). The role of skills competitions in improving the attractiveness of VET in Europe. Paper presented at the *Euroskills 2010, Lisbon, 9 to 12 December 2010*.
- Lasonen, J.; Gordon, J. (2009). Improving the attractiveness and image of VET. In: Cedefop (ed.). *Modernising vocational education and training: fourth report on vocational training research in Europe: background report, Vol. 3*. Luxembourg: Publications Office, Cedefop Reference series; No 71, pp. 15-88.  
[http://www.cedefop.europa.eu/etv/Upload/Information\\_resources/Bookshop/567/3050\\_3\\_en.pdf](http://www.cedefop.europa.eu/etv/Upload/Information_resources/Bookshop/567/3050_3_en.pdf).
- Lasonen, J.; Manning, S. (2001). How to improve the standing of vocational education compared to general education: a collaborative investigation of strategies and qualifications across Europe. In: Cedefop; Descy, P.; Tessaring, M. (eds). *Training in Europe: second report on vocational training*

- research in Europe 2000: background report, Vol. 1.* Luxembourg: Publications Office, Cedefop Reference series, pp. 115-168.
- Lasonen, J.; Young, M. (1998). *Strategies for achieving parity of esteem in European upper secondary education*, Institute for Educational Research. Jyväskylä: University of Jyväskylä.
- Leney, T. et al. (2004). *Achieving the Lisbon goal: the contribution of VET: final report to the European Commission*. London: QCA – Qualifications and Curriculum Authority.  
[http://ec.europa.eu/education/policies/2010/studies/maastricht\\_en.pdf](http://ec.europa.eu/education/policies/2010/studies/maastricht_en.pdf).
- Lippegaus-Grünau, P.; Stolz, I. (2010). *Handbuch zur Durchführung von Potenzialanalysen im Berufsorientierungsprogramm (BOP) des BMBF [Assistance for carrying out analyses of the potential of the BMBF's vocational orientation programme]*. Offenbach: INBAS, Institute for Vocational Training, Labour Market and Social Policy. Series Berichte und Materialien, Vol. 19.
- Muehleman, S. et al. (2007). An empirical analysis of the decision to train apprentices. *Labour*, September 2007, Vol. 21, No 3, pp. 419-441.  
<http://dx.doi.org/10.1111/j.1467-9914.2007.00379.x>.
- Minkkinen, J. et al. (2010). *Mental training workbook*. Helsinki: Skills Finland.  
[http://www.skillsfinland.fi/julkiset/valmennus/Huki\\_tuotteet/Skills\\_Mental\\_Training\\_Workbook\\_B5\\_lores.pdf](http://www.skillsfinland.fi/julkiset/valmennus/Huki_tuotteet/Skills_Mental_Training_Workbook_B5_lores.pdf).
- Miser, H.J.; Quade, E.S. (1985). *Handbook of systems analysis: overview of uses, procedures, applications and practice, Vol. 1*. Chichester: John Wiley and Sons.
- MŠMT (2001). *National programme for the development of education in the Czech Republic. White paper*. Prague: Ministry of Education, Youth and Sport.  
<http://aplikace.msmt.cz/pdf/WhitePaper.pdf>.
- MŠMT (2008). *Akční plán podpory odborného vzdělávání [Action plan for support of vocational education and training]*. Prague: Ministry of Education, Youth and Sport.  
[http://www.vzdelavani2020.cz/images\\_obsah/dokumenty/knihovna-koncepci/akcni-plan-odborne-vzdelavani/zp\\_akcniplanpodporyodbornehovzdelavani.pdf](http://www.vzdelavani2020.cz/images_obsah/dokumenty/knihovna-koncepci/akcni-plan-odborne-vzdelavani/zp_akcniplanpodporyodbornehovzdelavani.pdf).
- NALA (2008). *Submission to the study on the implementation and impact of the national framework of qualifications*. Dublin: National Adult Literacy Agency.  
<http://www.nqai.ie/documents/NALASubmission28Oct08.pdf>.
- Nationaler Pakt (2010). *Nationaler Pakt für Ausbildung und Fachkräftenachwuchs in Deutschland 2010-2014 [National pact for vocational training in Germany 2010-14]*. Berlin: Federal Employment Agency.  
<http://www.arbeitsagentur.de/zentraler-Content/A04-Vermittlung/A041-Erschliessung/Publikation/pdf/Nationaler-Pakt-Ausbildung-2010-2014.pdf>.
- Nokelainen, P. (2011). *Modelling the characteristics of vocational expertise and excellence: a case study with Finnish WorldSkills competitors*. Unpublished manuscript.

- Nokelainen, P.; Ruohotie, P. (2009). Characteristics that typify successful Finnish world skills competition participants. Paper presented at the *Annual meeting of the American Educational Research Association, San Diego, US, April 2009*.  
[http://www15.uta.fi/arkisto/aktk/projects/move/pdf/aera2009\\_nokelainen\\_ruohotie.pdf](http://www15.uta.fi/arkisto/aktk/projects/move/pdf/aera2009_nokelainen_ruohotie.pdf).
- Nokelainen, P. et al. (2012). *What contributes to vocational excellence: characteristics and experiences of competitors and experts in WorldSkills London 2011*. Madrid: WorldSkills Foundation.  
[http://www.worldskillsfoundation.org/downloads/WSF\\_MoVE\\_Global\\_report\\_WSC2011.pdf](http://www.worldskillsfoundation.org/downloads/WSF_MoVE_Global_report_WSC2011.pdf).
- NQAI (2009). *Framework implementation and impact study: report of study team*. Dublin: National Qualification Authority of Ireland.  
[http://www.nqai.ie/framework\\_study.html](http://www.nqai.ie/framework_study.html).
- NQAI (2010). *Response of the national qualifications authority of Ireland to the framework implementation and impact study (FIIS)*. Dublin: National Qualification Authority of Ireland.  
<http://www.nqai.ie/documents/AuthorityresponsetotheFrameworkImplementationandImpactStudyfinal.pdf>.
- NÚOV (2008a). *Průvodce současným odborným vzděláváním [Guide to current vocational education and training]*. Praha: NÚOV.  
[http://www.nuov.cz/uploads/PaK/Pruvodce\\_soucasnym\\_vzdelavanim.pdf](http://www.nuov.cz/uploads/PaK/Pruvodce_soucasnym_vzdelavanim.pdf)
- NÚOV (2008b). *Uplatnění absolventů škol na trhu práce, 2007 [School graduates in the labour market, 2007]*. Praha: NÚOV.  
[http://www.nuov.cz/uploads/Vzdelavani\\_a\\_TP/uplatneni\\_2007.pdf](http://www.nuov.cz/uploads/Vzdelavani_a_TP/uplatneni_2007.pdf).
- OECD (2010). *Learning for jobs: OECD reviews of vocational education and training*. Paris: OECD Publishing. [http://www.oecd-ilibrary.org/education/learning-for-jobs\\_9789264087460-en](http://www.oecd-ilibrary.org/education/learning-for-jobs_9789264087460-en).
- OECD (2012). OECD unemployment rate stable at 7.9% in May 2012. *OECD harmonised unemployment rates: news release: May 2012*.  
[http://www.oecd.org/std/labour-stats/HUR\\_NR07e12.pdf](http://www.oecd.org/std/labour-stats/HUR_NR07e12.pdf).
- Quade, E.S.; Boucher, W.I. (eds) (1968). *Systems analysis and policy planning: applications in defence*. Santa Monica: RAND Corporation. R-439-PR (Abridged)  
<http://www.rand.org/content/dam/rand/pubs/reports/2006/R439part1.pdf>.
- Quinlan, J. (2009). *Ireland and globalisation*. Dublin: American Chamber of Commerce Ireland. <http://www.amcham.ie/article.aspx?id=615>
- Rabinovich, L. et al. (2010). *How the department of health influences healthy living: the use of behaviour change programmes in public health*. Santa Monica, CA: RAND. Technical report, TR-780-NAO.  
[http://www.rand.org/content/dam/rand/pubs/technical\\_reports/2009/RAND\\_TR780.pdf](http://www.rand.org/content/dam/rand/pubs/technical_reports/2009/RAND_TR780.pdf).

- Räccöläinen, M.; Ecclestone, K. (2005). *The implications of using skills tests as basis for a national evaluation system in Finland: outcomes from a pilot evaluation in 2002–03 in Finland*. Helsinki: Finnish National Board of Education.  
[http://www.oph.fi/download/47639\\_evaluation\\_1\\_2005.pdf](http://www.oph.fi/download/47639_evaluation_1_2005.pdf).
- Raffe, D. (2009). *Can NQFs be used to change education and training systems?* Edinburgh: Centre for Educational Sociology. CES briefings, No 48.  
<http://www.ces.ed.ac.uk/publications/briefings.htm>.
- Rasku, S. (2011). Benefits of skills competitions. Paper presented at the *International seminar on performance for excellence, Kuopio, Finland, 4 May 2011*.
- Resort-AG Übergang Schule-Beruf (2011). *Bericht der ressortübergreifenden Arbeitsgruppe zur besseren Abstimmung der verschiedenen Programme und Förderinstrumente für junge Menschen [Report of the comprehensive working group on better coordination of different programmes and sponsoring instruments for young people]*.  
[http://www.bildungsketten.de/\\_media/Ressort\\_AG\\_Bericht-zur-besseren-Abstimmung-Foerderprogramme.pdf](http://www.bildungsketten.de/_media/Ressort_AG_Bericht-zur-besseren-Abstimmung-Foerderprogramme.pdf).
- Sáenz Almeida, P. et al.(2010). *La educación en España: situación, problemas y propuestas [Education in Spain: situation, problems and propositions]*. Madrid: CCOO Federation of Teaching.  
[http://www.fe.ccoo.es/comunes/recursos/25/pub17637\\_La\\_Educacion\\_en\\_Espana.\\_Situaciones,\\_problemas\\_y\\_propuestas..pdf](http://www.fe.ccoo.es/comunes/recursos/25/pub17637_La_Educacion_en_Espana._Situaciones,_problemas_y_propuestas..pdf).
- Schuck, U. (2011). *Abschluss und Anschluss – Bildungsketten bis zum Ausbildungsabschluss [Graduation and inclusion – Educational chains up to certification]*. Berlin: BBE – Bundesnetzwerk Bürgerschaftliches Engagement. BBE-newsletter 4/2011. [http://www.b-b-e.de/fileadmin/inhalte/aktuelles/2011/04/nl4\\_schuck.pdf](http://www.b-b-e.de/fileadmin/inhalte/aktuelles/2011/04/nl4_schuck.pdf).
- Sheehan, B. (2010). End of social partnership as public sector talks collapse. *EIROOnline*, 5.2.2010.  
<http://www.eurofound.europa.eu/eiro/2009/12/articles/ie0912019i.htm>.
- Sheppard, B.H. et al. (1988). The theory of reasoned action: a meta-analysis of past research with recommendations for modifications and future research. *Journal of consumer research*, December 1988, Vol. 15, No 3, pp. 325-343.  
<http://www.jstor.org/stable/2489467>.
- Siikaniemi, L. (2005). *Magnetic metal: towards a model for satisfaction of education and career in vocational upper secondary education and training of machinery and metal technology in the Lahti region*. Tampere: University of Tampere (unpublished dissertation).
- Skills Finland (2009). *Promoting excellence in skills*. Helsinki: Skills Finland.  
[http://www.skillsfinland.fi/julkiset/taitaja/Skills\\_yleisesite\\_ENG\\_2009\\_lores.pdf](http://www.skillsfinland.fi/julkiset/taitaja/Skills_yleisesite_ENG_2009_lores.pdf).
- Stasz, C.; Wright, S. (2004). *Emerging policy for vocational learning in England: will it lead to a better system?* London: Learning and Skills Network. LSRC research report.

- Statistisches Bundesamt (2012). *Bildung und Kultur. Nichtmonetäre hochschulstatistische Kennzahlen 1980-2010 [Education and culture. Non-monetary university statistics 1980-2010]*. Vol. 11, No 4.3.1, Wiesbaden: Statistisches Bundesamt.
- Straif, C. (2011). *Expertise Berufseinstiegsbegleitung. Unterstützung individueller Wege in den Beruf [Expert opinion on programmes accompanying labour market entry: support of individual pathways into work]*. Bonn: BIBB.
- StudisOnline (2012). *Duales Studium als Erstausbildung [Dual university courses of foundation training]*. [http://www.studis-online.de/StudInfo/duales\\_studium.php](http://www.studis-online.de/StudInfo/duales_studium.php) [accessed: 30.8.2013].
- Tchibozo, G. (2009). Improving attractiveness of initial vocational education and training: some observations on the EU experience. Paper delivered at the conference *Lifelong learning revisited: what next? University of Stirling, 23 to 26 June 2009*.
- Thiele, P. (2011). Systemic interlinking of school, 'transitional system' and training. An interview with Peter Thiele on the Federal Ministry of Education and Research (BMBF) initiative 'educational chains until the completion of training'. <http://www.bibb.de/en/57608.htm>.
- Trant, A. et al. (1999). *Reconciling liberal and vocational education. Report of the European Union Leonardo da Vinci research project on promoting the attractiveness of vocational education (PAVE)*. Dublin: Curriculum development unit.
- Unesco (2011). Revision of the international standard classification of education (ISCED). Paper presented at the *Unesco general conference, 36th session, Paris, 5 September 2011*. [http://www.uis.unesco.org/Education/Documents/UNESCO\\_GC\\_36C-19\\_ISCED\\_EN.pdf](http://www.uis.unesco.org/Education/Documents/UNESCO_GC_36C-19_ISCED_EN.pdf).
- Walker, W.E. (2000). Policy analysis: a systematic approach to supporting policy-making in the public sector. *Journal of multicriteria decision analysis*, May 2000, Vol. 9, No 1-3, pp. 11-27. [http://dx.doi.org/10.1002/1099-1360\(200001/05\)9:1/3<11::AID-MCDA264>3.0.CO;2-3](http://dx.doi.org/10.1002/1099-1360(200001/05)9:1/3<11::AID-MCDA264>3.0.CO;2-3).
- Watson, D. et al. (2006). *The post-leaving certificate sector in Ireland: a multivariate analysis of educational and employment outcomes*. Dublin: Department of Education and Science. <http://www.education.ie/en/Publications/Education-Reports/The-Post-Leaving-Certificate-Sector-in-Ireland-A-Multivariate-Analysis-of-Educationaland-Employment-Outcomes.pdf>.
- Watters, E. (2009). *Making IVET more attractive for learners: results of the work undertaken by the thematic group on making VET more attractive*. Dublin: ENQA-VET, European Network for Quality Assurance. [http://www.deqavet.de/\\_media/PDF\\_allgemein/TG\\_Report\\_MIVMA.pdf](http://www.deqavet.de/_media/PDF_allgemein/TG_Report_MIVMA.pdf).
- Weich, M. (2008). Bayerisches Beispiel als Modell für die Zweigleisigkeit [Bavarian example as a model for duplication]. *DEGA Magazin für Entscheider*,

- September 2008, Vol. 36, pp. 41-42. [http://www.hochschule-dual.de/cms/upload/publikationen/dega\\_2008\\_36\\_041-043\\_1\\_NzU5NTM2.pdf](http://www.hochschule-dual.de/cms/upload/publikationen/dega_2008_36_041-043_1_NzU5NTM2.pdf).
- Weich, M. (2011). Eng verzahnt: in Bayern macht man dual gemeinsam [Closely related: in Bavaria dual studies are carried out together]. *Quartera Magazin*, June 2011, pp. 70-77. [http://www.hochschule-dual.de/cms/upload/publikationen/Eng\\_verzahnt\\_Miriam%20Weich.pdf](http://www.hochschule-dual.de/cms/upload/publikationen/Eng_verzahnt_Miriam%20Weich.pdf).
- Weissmann, H. (2010). *Qualitätsstandards zur Durchführung von Potenzialanalysen in Programmen zur Berufsorientierung des BMBF [Quality standards for carrying out analyses relating to the potential of labour market orientation programmes by the BMBF]*. Berlin: BMBF. [http://www.bmbf.de/pubRD/qualitaetsstandards\\_bildungsketten.pdf](http://www.bmbf.de/pubRD/qualitaetsstandards_bildungsketten.pdf).
- Westergaard-Nielsen, N.; Rasmussen, A. (1999). *The impact of subsidies on apprenticeship training*. Aarhus: Centre for labour market and social research. <http://old-hha.asb.dk/nat/nwnart1.pdf>.
- Young, M. (2000). Improving vocational education: trans-European comparisons of developments in the late 1990s. In: Stenström, M.-L.; Lasonen, J. (eds). *Strategies for reforming initial vocational education in Europe*. Jyväskylä: Institute for Educational Research, pp. 147-162.

## ANNEX A.

# Notes on quantitative data

The Tables A1 summarise the source and method of calculation for the quantitative data presented in Chapters 3, 4 and 5 and for the country fiches.

The UOE demographic data are provided by national statistics agencies. Demographic data are collected through censuses, administrative data and national surveys. In some cases, these data were provided by OECD Stat where they were unavailable on Eurostat. These exceptions are noted in each figure.

The aim is to provide comparable statistics and indicators on key aspects of the education systems across Europe. The data cover participation and completion of education programmes by pupils and students, personnel in education and the cost and type of resources dedicated to education. The standards on international statistics on education and training systems are set by the Institute for Statistics of the United Nations Educational, Scientific, and Cultural Organisation (Unesco-UIS), the OECD and Eurostat (UOE).

The EU labour force survey (EU-LFS) is a quarterly household sample survey carried out in the Member States, candidate countries and EFTA countries (except for Liechtenstein). It is the main source of information about the situation and trends on the labour market in the EU. The EU-LFS is organised in 12 modules covering demographic background, labour status, employment characteristics of the main job, atypical work, working time, employment characteristics of the second job, previous work experience of persons not in employment, search for employment, main labour status, education and training, situation one year before the survey, and income.

CVTS is an enterprise-level survey given to enterprises with 10 or more employees in certain sectors.

The European social survey (ESS) is an academically-driven social survey designed to chart and explain the interaction between Europe's changing institutions and the attitudes, beliefs and behaviour patterns of its populations. The ESS was established in 2001. It is jointly administered by the Centre for Comparative Social Surveys at City University London (the UK), NSD (Norway), GESIS (Germany), the Netherlands Institute for Social Research/SCP (the Netherlands), the Universitat Pompeu Fabra (Spain), the University of Leuven, (Belgium) and the University of Ljubljana (Slovenia) There have been five rounds of surveys, the most recent being 2010.

Table A1. Notes on data calculations (Chapter 3)

Data	Data source	Notes on calculation
Real GDP	Eurostat/UE	Directly reported (in Euros, converted at purchasing power parity, and adjusted by the nominal GDP deflator)
Unemployment rate	Eurostat/EU-LFS	Directly reported as % (15-64 year-olds)
Youth unemployment rate	As above	Directly reported as % (15-24 year-olds)
Old age dependency ratio	Eurostat/UE	Number of 65+ year-olds as percentage of number of those aged 15-64.
Young adult population	As above	Number of 18-24 year-olds as percentage of total population
Immigration rate	As above; OECDStat	Number of immigrants aged 15-24 as a percentage of total population aged 15-24
Emigration rate	As above	Number of emigrants aged 15-24 as a percentage of total population aged 15-24
Net migration rate	As above	Difference between immigration and emigration rate
Relative skill of young immigrant population	Eurostat/EU-LFS, special module; OECDStat	Ratio of number of immigrants aged 15-24 year-olds with ISCED 3-4 qualifications and ISCED 0-2 qualifications
Occupational structure	Eurostat/EU-LFS	Number of workers by ISCO-1 occupations as % of total number of workers – filtered by ISCED level where necessary
Educational composition of occupations	Eurostat/EU-LFS	Number of workers by ISCED groups as % of number of workers in each ISCO-1 occupation group
Expenditure on secondary education	Eurostat/UE; OECDStat	Reported expenditure on ISCED 2-4 level programmes in public institutions as % of GDP
Expenditure on secondary education per capita	Eurostat/UE; OECDStat	(Expenditure on ISCED 2-4 level programmes in public institutions as % of GDP) * (Reported GDP per capita (deflated to 2001 prices))
Expenditure on upper secondary and post-compulsory education	Cedefop website (cited as Eurostat); OECDStat	Directly reported expenditure in public institutions as % of GDP, calculated in national currency terms
Enrolment	Eurostat/UE	Number of enrolments by type of institution as a percentage of total enrolments in ISCED 3-4 vocational programmes.
Firm participation in IVET	CVTS, Eurostat	Number of firms offering IVET as % of all firms in survey
Participation rates	Eurostat/UE	Number of students in ISCED 3 and 4 vocational programmes as % of number of students in all ISCED 3 and 4 programmes. Data on age unavailable.
IVET graduate rates	Eurostat/UE	Number of students completing ISCED3 and ISCED4 vocational programmes (15-24 year-olds) as % of total 15-24 population
General programme graduation rates	As above	As above, for generation programme graduates

Data	Data source	Notes on calculation
Early school leaving rate	Eurostat/EU-LFS	Directly reported as %, defined as population aged 18-24 having attained at most lower secondary education and not being involved in further education or training. The numerator of the indicator refers to persons aged 18 to 24 who meet the following two conditions: (a) the highest level of education or training they have attained is ISCED 0, 1, 2 or 3c short; and (b) they have not received any education or training in the four weeks preceding the survey. The denominator in the total population consists of the same age group, excluding the respondents who have not answered the questions 'highest level of education or training attained' and 'participation to education and training'.
Educational attainment of working age population	EU-LFS, Eurostat	Number of working age population (18-64) with upper secondary or tertiary education as highest qualification, as % of total working age population
Earnings	ESS	Wages of those in ISCED 2A general and vocational programmes, level 3A general programmes, level 3A, 3B and 3C (> 2 years) vocational programmes, level 4A vocational programmes and level 5A general programmes, converted to weekly earnings using pay period information
Employment rates	EU-LFS, Eurostat	Directly reported as %, by ISCED educational level

Source: Rand Europe and SKOPE.

Table A2. Notes on data calculations (Chapter 4)

Data	Data source	Notes on calculation
Image of IVET	Eurobarometer Special 369 QA9	Directly reported % stating 'very positive' or 'fairly positive'
Relative esteem indicator	Eurobarometer 369 (QA8) and Eurobarometer Special 216 (Q1)	Difference between % recommending vocational and general education.
Vocational education as pathway to employment	Eurobarometer Special 369 QA12	Directly reported % stating 'more likely' 2011 (QA12) and % stating 'less likely'
Pay following vocational education	Eurobarometer Special 369 QA10.9	Directly reported % stating 'totally agree' or 'tend to agree' 2011 (QA10.9) and % stating 'totally disagree' or 'tend to disagree'
Status of jobs following from vocation education	Eurobarometer Special 369 QA10.10	Directly reported % stating 'totally agree' or 'tend to agree' 2011 (QA10.10) and % stating 'totally disagree' or 'tend to disagree'
Likelihood of employment indicator	Eurobarometer Special 369 QA12	Difference between % stating 'more likely' 2011 (QA12) and % stating 'less likely'
Competence of teachers and trainers	Eurobarometer Special 369 QA10.3	Directly reported % stating 'totally agree' or 'tend to agree' 2011 (QA10.3) and % stating 'totally disagree' or 'tend to disagree'
Quality of learning	Eurobarometer Special 369 QA10.1	Directly reported % stating 'totally agree' or 'tend to agree' 2011 (QA10.1) and % stating 'totally disagree' or 'tend to disagree'
Sources of information	Eurobarometer Special 369 QA7	Directly reported % citing specific sources 2011 (QA7)
Importance of factors	Eurobarometer Special 369 QA4a	Directly reported % stating 'fairly important' or 'very important' 2011 (QA4a)
Sources of advice	Eurobarometer Special 369 QA5	Directly reported % receiving advice from specific sources 2011 (QA5)

Source: Rand Europe and SKOPE.

Chapter 5 also includes data from the survey conducted for this project which is described above.

Table A3 summarises the sample size for the three Europe-wide surveys.

Table A3. **Sample sizes**

	<b>EU-LFS</b>	<b>CVTS</b>	<b>ESS</b>
Belgium	20 800	2 959	1 704
Bulgaria	27 600	2 788	2 434
Czech Republic	46 300	8 011	2 386
Denmark	40 000	884	1 576
Germany	132 400	2 857	3 031
Estonia	4 000	2 112	1 793
Ireland	56 500	4 500	2 576
Greece			2 715
Spain	129 200		1 885
France	75 600	4 745	1 728
Italy	123 000	15 470	
Cyprus	7 700		1 083
Latvia	8 100	2 681	
Lithuania	13 200	4 100	
Luxembourg	3 600	799	
Hungary	56 500	4 510	1 561
Malta	5 100	1 077	
Netherlands	35 500	4 495	1 829
Austria	35 500	1 456	
Poland	41 100	15 945	1 751
Portugal	31 500	4 425	2 150
Romania	48 000	8 143	
Slovenia	16 500	1 831	1 403
Slovakia	20 900	1 748	1 856
Finland	34 100	1 240	1 878
Sweden	50 000	1 208	1 497
United Kingdom	82 400	336	
Iceland	3 100		2 422
Norway	20 700	916	1 548
Switzerland	43 900		1 506

Source: RAND Europe and SKOPE.

## ANNEX B.

# Overview tables on policy initiatives

Table B1 shows different measures identified through the country fiches that are either specifically intended to raise the attractiveness of IVET or which may increase attractiveness, though not necessarily specifically intended as such. The information was gathered through a standardised data gathering template. The template listed a set of measures/policies to raise attractiveness that have been identified in literature (underlined as column headings below), and research team members were asked to organise initiatives into these categories. Any additional initiatives were added to the starting list. Researchers were also asked to indicate whether 'attractiveness' was stated as a specific aim of the measure. Some initiatives address multiple goals, so main goals are recorded separately. Initiatives dealing specifically with apprenticeship are listed separately from 'Promoting work-based learning' in the context of a mainly school-based model. To create Table 5 and tables included in this Annex, a senior researcher read all the fiches and categorised initiatives reported therein. All data tables were then reviewed and corrected by the team member responsible for each country fiche. Information for some countries was further validated by an expert from the country following a validation workshop held in October 2012 (Bulgaria, the Czech Republic, Estonia, Italy, Lithuania, Hungary, Portugal, Romania, Slovenia and Slovakia).

This information should be considered as indicative of measures reported, not an exhaustive list.

Table B1. Measures to improve quality or raise the attractiveness of IVET by country

	Improve permeability, diversity of routes and programmes	Promote work-based learning	Improve access for specific groups	Improve quality processes; adopt quality framework (including EQAVET)	Increasing transparency, e.g. NQF (including, increasing 'EU' transparency, e.g. EQF.)	Improvements to guidance and counselling	Campaigns to raise awareness	Skills competitions	Improve transition from VET to higher education	Reduce early school leaving	Financial incentives
AT	✓		✓	✓	✓		✓		✓		✓
BE (Fl.)	✓	✓		✓	✓	✓	✓		✓	✓	✓
BG			✓			✓	✓	✓			
CY	✓		✓		✓	✓	✓		✓	✓	✓
CZ					✓	✓	✓		✓		✓
DK	✓		✓	✓			✓	✓			✓
EE				✓			✓	✓			✓
FI		✓			✓	✓	✓	✓	✓		
FR				✓		✓	✓	✓			
DE	✓	✓	✓		✓		✓		✓		✓
EL				✓		✓	✓		✓		✓
HU	✓				✓		✓	✓			✓
IS	✓		✓	✓		✓	✓	✓		✓	✓
IE	✓		✓	✓	✓	✓	✓		✓	✓	✓
IT	✓	✓			✓	✓	✓				
LV					✓		✓	✓			✓
LT	✓			✓			✓	✓	✓		
LU	✓			✓		✓	✓			✓	✓
MT	✓	✓	✓		✓	✓	✓				✓
NL	✓					✓	✓	✓			
NO	✓				✓	✓			✓	✓	
PL	✓										
PT				✓	✓	✓	✓	✓			
RO		✓		✓	✓					✓	✓
SK	✓	✓	✓				✓	✓		✓	
SI	✓			✓	✓		✓				
ES	✓	✓		✓			✓	✓		✓	
SE			✓	✓					✓	✓	✓
CH		✓	✓		✓	✓	✓		✓	✓	
UK (Eng.)						✓	✓	✓	✓		✓
KR		✓			✓	✓	✓	✓	✓		✓
AU (*)			✓	✓							✓

(\*) Australia has also initiated a choice system where students, apprentices and employers get to choose where the off-the-job training will take place. The government then directs funds to the selected provider (formerly publicly-funded TAFE colleges monopolised apprenticeship and traineeship training).

	Create VET programmes at higher level	Improve teachers or teaching (also trainers)	Increase involvement of employers, labour market, social partners	Trans-national mobility	Revise, modernise IVET curriculum	Improve infrastructure of VET schools	Improvements to/introduction of apprenticeship system	Structural changes to improve collaboration across levels (e.g. state, regional), institutions, stakeholders	Introduction to IVET at lower secondary level/earlier age; 'try-out' courses	Adjust offerings to meet labour market needs (add or subtract)
AT		✓	✓		✓	✓	✓			
BE (Fl.)	✓		✓				✓	✓		
BG						✓				
CY	✓			✓	✓	✓	✓			
CZ			✓					✓		
DK					✓	✓				
EE <sup>(a)</sup>		✓		✓		✓		✓		
FI <sup>(b)</sup>		✓		✓						
FR					✓	✓	✓	✓		
DE			✓		✓			✓	✓	
EL		✓			✓		✓			
HU <sup>(c)</sup>		✓	✓							
IS <sup>(d)</sup>			✓	✓	✓			✓		
IE	✓	✓	✓		✓	✓		✓	✓	
IT		✓					✓	✓		
LV										
LT		✓						✓		
LU		✓	✓	✓						
MT		✓						✓	✓	
NL		✓		✓						
NO		✓			✓			✓		
PL		✓	✓		✓					
PT		✓				✓				
RO		✓					✓	✓		
SK	✓	✓	✓		✓		✓	✓	✓	
SI						✓			✓	
ES		✓	✓				✓		✓	
SE	✓	✓			✓		✓	✓		
CH		✓			✓		✓			
UK (Eng.)						✓	✓			
KR	✓	✓	✓		✓	✓	✓	✓	✓	
AU						✓	✓		✓	

<sup>(a)</sup> Estonia is also reorganising the general education system such that students at the end of lower secondary must make a choice whether to carry on in a general or vocational school at upper secondary. Previously, students could carry on in the same school for general education, making this the default option. The specific introduction of choice places general and VET studies at upper secondary at equal level, which might benefit IVET participation.

<sup>(b)</sup> A reform unique to Finland (not tabled) was the introduction of a joint application system for upper secondary education in 2009, which was credited for increasing applications for IVET over general education for the first time.

<sup>(c)</sup> Hungary is also reforming general education, which is expected to have an impact on IVET attractiveness. One of the problems of IVET in Hungary is that it is the second tier of school students who go into these programmes. The thinking is that reforms of the general education system which aim to raise the overall achievement level and performance of all students, especially the weaker students, would improve IVET outcomes by raising the quality of the 'raw material'.

<sup>(d)</sup> In addition, Iceland is continuing its earlier initiative to increase opportunities for distance learning.

Table B2. Countries listing each measure/initiative

Improve permeability, diversity of routes and programmes	Promote work-based learning	Improve access for specific groups	Improve quality processes; adopt quality framework (including EQAVET)	Increase transparency (e.g. NQF, ECVET, EQAVET)	Improvements to guidance and counselling	Campaigns to raise awareness	Skills competitions	Improve transition from VET to higher education	Reduce early school leaving	Financial incentives
Austria Belgium Cyprus Denmark Germany Hungary Iceland Ireland Italy Lithuania Luxembourg Malta Netherlands Poland Slovakia Slovenia Spain	Belgium Finland Germany Italy Malta Romania Slovakia Spain	Austria Bulgaria Cyprus Denmark France Malta Slovakia Sweden Ireland	Austria Belgium Denmark Estonia France Finland Greece Iceland Ireland Lithuania Luxembourg Portugal Romania Slovenia Spain Sweden	Austria Belgium Cyprus Czech Republic Finland Germany Hungary Ireland Italy Latvia Malta Norway Portugal Romania Slovenia	Belgium Bulgaria Cyprus Czech Republic Finland France Greece Iceland Ireland Italy Luxembourg Malta Netherlands Norway Portugal UK	Austria Belgium Bulgaria Czech Republic Cyprus Denmark Estonia Finland France Germany Greece Hungary Italy Latvia Luxembourg Malta Netherlands Lithuania Luxembourg Malta Netherlands Portugal Slovakia Slovenia Spain UK	Austria Belgium Bulgaria Czech Republic Denmark Estonia Finland France Germany Hungary Italy Latvia Luxembourg Malta Netherlands Poland Portugal Slovakia Slovenia Spain UK	Austria Belgium Cyprus Czech Republic Finland Germany Greece Ireland Lithuania Norway Sweden UK	Belgium Cyprus Ireland Luxembourg Romania Slovakia Spain Sweden	Austria Belgium Cyprus Czech Republic Denmark Estonia Germany Greece Hungary Ireland Latvia Luxembourg Malta Romania Sweden UK
Norway	South Korea Switzerland	Australia Iceland Switzerland	Australia	South Korea Switzerland	South Korea Switzerland	Iceland South Korea Switzerland	Iceland South Korea	South Korea Switzerland	Iceland Norway Switzerland	Australia Iceland South Korea

<b>Create VET programmes at higher level</b>	<b>Improve teachers or teaching (also trainers)</b>	<b>Increase involvement of employers, labour market, social partners</b>	<b>Transnational mobility</b>	<b>Revise, modernise IVET curriculum</b>	<b>Improve infrastructure of VET schools</b>	<b>Improvements to/ introduction of apprenticeship system</b>	<b>Structural changes to improve collaboration across levels (e.g. state, regional), institutions, stakeholders</b>	<b>Introduction to IVET at lower secondary level/earlier age; Try-out courses</b>	<b>Adjust VET programmes to meet labour market needs (add or subtract)</b>
Belgium Cyprus Germany Ireland Slovakia Sweden	Austria Estonia Finland Greece Hungary Italy Ireland Lithuania Luxembourg Malta Netherlands Poland Portugal Romania Slovakia Spain Sweden	Austria Belgium Czech Republic Germany Hungary Ireland Luxembourg Poland Slovakia Spain	Cyprus Estonia Finland Luxembourg Netherlands Slovenia	Austria Cyprus Denmark France Germany Greece Ireland Poland Slovakia Sweden	Austria Bulgaria Cyprus Denmark Estonia France Ireland Portugal Slovenia UK	Austria Belgium Cyprus France Greece Italy Romania Slovakia Spain Sweden UK	Czech Republic France Germany Ireland Italy Lithuania Romania Slovakia Sweden	Belgium Estonia France Germany Iceland Italy Malta Sweden	Germany Ireland Malta Slovakia Slovenia Spain
South Korea	Norway South Korea Switzerland	Iceland South Korea	Iceland	Iceland Norway South Korea Switzerland	Australia South Korea	Australia South Korea Switzerland	Iceland South Korea	Iceland Norway	Australia South Korea

## ANNEX C.

# Mindspace

Mindspace is a checklist of influences on human behaviour for use when making policy. It was developed by Paul Dolan, Michael Hallsworth, David Halpern, Dominic King and Ivo Vlaev. Mindspace sets out nine of the most robust (non-coercive) influences on human behaviour, captured in a simple mnemonic – mindspace.

More detail on the findings of the mindspace work is presented below. Some possible implications and outstanding questions in relation to IVET, which are reflected in the report, are discussed.

## Messenger

Mindspace suggests that we are heavily influenced by who communicates information. In particular:

- (a) we are affected by the perceived authority of the messenger (we are more likely to act on information from an ‘expert’);
- (b) we are also more likely to respond if the messenger is similar to us (behaviourally or demographically);
- (c) we are affected by the feelings we have towards the messenger, positive or negative.

This leads to a number of questions in term of IVET attractiveness. For example, which messengers might be positively viewed by relevant stakeholders? How can similarity and authority be leveraged? What messengers are used in existing communication strategies, and how do these differ depending on the target audience?

## Incentives

The mindspace framework suggests that our responses to incentives are shaped by predictable mental shortcuts such as avoiding losses. Five key insights are identified:

- (a) we dislike losses more than we value gains;
- (b) we judge the value of money relevant to narrow reference points;
- (c) we allocate money to different mental budgets;
- (d) we overestimate the likelihood of small probabilities;

(e) we prefer smaller immediate payoffs to larger more distant ones.

Also, there is a risk that paying people to do something will reduce the feeling that it is worthwhile in itself. In IVET this offers questions and insights. For example, are financial incentives beneficial or do they contribute to low esteem by reducing the intrinsic value of IVET? How do students consider factors such as living costs or transport? They may allocate these to separate mental budgets from tuition/course fees and so the way costs and support offered are presented should be considered. Costs in the long term are not always weighed as highly as those in the short term, which implies that future outcomes, in terms of pay, may not be considered proportionately compared to costs of participation in the course.

## Norms

MindSpace suggests that we tend to do what those around us are already doing. These norms can be explicitly stated or implicit in observed behaviour, and can spread quickly through social networks or environmental clues about what others have been doing. Norms can be used successfully in policy, mostly based on telling (or not telling) what other people do in a similar situation. This raises several questions in relation to IVET attractiveness. For example: to what extent do norms influence the behaviour of these groups? Does this differ between stakeholders? How do current policy approaches tackle norms? What are the implications for communication?

## Defaults

According to mindSpace, people tend to 'go with the flow' of pre-set options. Defaults are what happens if people do not make an active choice, and the mindSpace approach suggests that we have an in-built bias to accept the default situation even if it has significant consequences. In this context, it might be important to understand what the defaults are for different groups in relation to IVET, and how context (geographic, economic, and others) affects these defaults. In particular, it would be interesting to consider the extent to which existing defaults in the education system influence decision-making.

## Salience

MindSpace suggests that our attention is drawn to what is novel and seems relevant to us. Simplicity is particularly important as attention is more easily drawn

to things we understand, and we are much more likely to understand and notice things that relate more directly to our own personal experiences. This suggests that to make messages about IVET salient, it needs to be presented in a simple and accessible way; this could be challenging given that there is often a complex range of IVET pathways available, by comparison to the typically more straightforward general education system. It also suggests that communication efforts should be made relevant to the target audience.

## Priming

According to the mindspace framework, our acts are often influenced by subconscious cues. This is the least well understood and most controversial element of the framework, but it is thought to have a powerful effect on behaviour. It could be as simple as providing information and setting the scene, perhaps through a number of sources, before a decision point is reached. The implication of this is that information strategies that use multiple elements, so the same message is presented in different ways and through different routes, are likely to be more effective. It also raises a number of questions. For example: when and where do students receive information or guidance and counselling? Where does the decision point fall about which pathway to choose, and what is the context? This is not well understood and would require more detailed investigation at the national level than is possible in this study, since this differs significantly from country to country.

## Affect

This is the concept that our emotional associations can powerfully shape our actions and can override 'rational' decision-making resulting in seemingly illogical decisions. In this context, it is important to understand what the feelings of stakeholders are regarding IVET, and how emotions play in to the decision-making process, as it is likely these may well override rational choices.

## Commitments

Mindspace suggests that we seek to be consistent with our public promises, and reciprocate acts. Hence, committing to an action, especially publicly, increases the likelihood of it taking place significantly. It also suggests that we have a strong instinct for reciprocity: receiving a gift makes us feel a strong commitment to return

the favour. In relation to IVET, it would be interesting to understand what commitments in relation to educational pathways stakeholders make and when. In terms of policy-making, this suggests that it might be important to think about how to engage groups with IVET at an early stage to ensure buy-in.

## Ego

According to the mindspace framework, we act in ways that make us feel better about ourselves. When things go well, we take the credit, but if things go wrong, we like to blame external factors: this can also be extended to our group or community. We also like to be self-consistent and act according to our beliefs. However, changes in attitude often follow changes in behaviour rather than the other way around. This suggests that early engagement for students, employers and other stakeholders might be important. For example, it may be valuable to expose students to IVET at lower secondary level, or give ‘taster’ opportunities. Short-term courses which can then be extended could also be useful. It also raises questions around how IVET can be made ‘aspirational’ and how IVET fits with the wider goals and aspirations of individuals.





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European Centre for the Development  
of Vocational Training

# Attractiveness of initial vocational education and training: identifying what matters

Luxembourg:  
Publications Office of the European Union

2014 – VI, 267 p. – 21 x 29.7 cm

ISBN 978-92-896-1609-6  
ISSN 1831-5860  
doi: 10.2801/74821  
Cat. No: TI-BC-14-001-EN-N

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## Attractiveness of initial vocational education and training: identifying what matters

Stereotypes prevail: many Europeans still opt for a vocational educational pathway as second choice when deciding about a future career. Despite being high on European and national policy agendas for more than a decade, and despite all efforts made, VET is no more attractive in most countries today than it was some years ago. Building on a system approach, and drawing on quantitative and qualitative analysis, this research paper explores how several drivers affect the attractiveness of IVET. Endogenous drivers having impact on IVET systems and outcomes are relevant, but context also matters. IVET outcomes need to be communicated in the right way to highlight the attractiveness of this educational path to young people. A total of 10 case studies of policy initiatives from six countries are analysed to see what works, and why, in different national contexts.

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