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Scenarios for vocational education and training in Europe in the 21st century

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ABSTRACT

Building on the findings of Cedefop's research project 'The changing nature and role of VET in Europe' (2015–18), this article outlines the development and transformation of European VET over the last two decades. Exploring change from epistemological-pedagogical, institutional and socio-economic perspectives, the research not only illustrates the stability and path dependence of national VET systems (and how this sustains overall VET-diversity in Europe), it also demonstrates how the combination of incremental change and major societal and economic shocks shift the orientation of VET. This mapping and analysis of the past is used to outline possible scenarios for the future of vocational education and training in Europe. Three main scenarios - pluralistic, distinctive and special-purpose VET - illustrate the different directions VET can take in the next two decades and the challenges and opportunities involved in this. The final part of the article discusses the potential use of the scenario-approach and how this is taken forward in Cedefop's follow-up project on the Future of VET (2019–2022).

KEYWORDS

vocational education and training, Europe, trends, future scenarios, Cedefop

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INTRODUCTION

While European vocational education and training (VET) has deep and century-long historic roots, its incorporation into public formal education systems is of a more recent date. Until the mid-20th century VET had been primarily the interest and responsibility of employers and private business. VET commonly operated in its own sphere, independent of the norms and institutions underpinning national education systems in general. Furthermore, VET was largely understood as medium level training giving direct access to employment but offering limited opportunities for educational progression. Increasingly seeing this institutional isolation and limited scope (VET as a 'dead-end') as a problem, countries have given priority to the integration and incorporation of VET into the overall education and training systems, notably through the introduction of more permeable systems making it possible also for VET candidates to progress across education and training levels and types. While this partly has been achieved through the growing acceptance of VET as a foundation for academic studies, the recently rapid development of higher-level VET (EQF level 5-8) also contributes to this transformation (Cedefop, 2019).

While this integration and expansion indeed has changed the character and role of European VET, it is not given how VET's role in the future will develop: Is VET coming under threat by a changing labour market where automation and digitalization is 'hollowing out' the middle level skills traditionally provided by VET? Are new forms of jobs, for example linked to the platform or gig economy, further weakening the relevance of VET? Are we heading towards a situation where young people are increasingly attracted to general and academic subjects, side-lining VET as a poorly esteemed second chance option, primarily seen as a way of integrating groups at risk? Or are we facing a situation where VET, not least through its focus on practice- and work-based learning, is becoming increasingly important for a labour market in constant change, offering relevant skills at all levels and for people of all ages and in all life situations?

This article shows possible scenarios for the future of vocational education and training in Europe. It is based on a comprehensive research-project conducted by Cedefop involving researchers from 30 countries (Cedefop, 2020). Two aspects turned out to be fundamental for the research. Firstly, that history matters. National VET systems are constantly developing either through small daily steps or through major policy reform, sometimes in response to external 'shocks' like the 2008 Economic crisis or the COVID crisis, sometimes from the inside without any recognizable external pressure (see also Terence Hogarth's contribution in this volume). Hence, future developments of national VET systems cannot be seen in isolation from the past and it is important to consider their path-dependency. Secondly, perspective matters. Changes of VET systems and practices cannot be analyzed satisfactory from a single empirical and/or disciplinary perspective. Analyzing the structure and form of organizations is important but provides limited insight into the way knowledge and skills evolves. And while in-depth analysis of organizations and epistemologies are crucial, they may overlook the way VET interacts with the labour market and society, for example through tri-partite arrangements or markets. In the following, we will therefore present a multi-perspective analytical framework that we have developed specifically for the comparative analysis of the past and future of VET.

We begin with a brief illustration of common features of VET systems in comparison to general education and what international education statistics reveal about the ups and downs of

VET. Next, we provide a synopsis of major trends and tensions in VET in Europe since 1995[1]. Finally, we introduce three basic scenarios for VET in Europe for 2035 and conclude with an outlook on the use of these scenarios at national level.

THE LONG-TERM TRANSFORMATION OF VET

Contrary to general education, vocational education not only needs to respond to changes in technologies and labour markets but will also have a direct impact on the way work is carried out. Consequently, VET is more interwoven with national, regional and increasingly international labour markets and differs in important aspects from general education systems which are worth to recollect (Markowitsch & Hefler, 2018, p. 218): Firstly, while most countries have one or maybe two dozen different curricula of upper-secondary general education, VET at upper-secondary level is much more varied, with many countries having more than 200 programmes in place. This reflects the obvious need for programmes to capture and deliver relevant and diverse technical and occupational specific skills. Secondly, while upper secondary general education is standardized in practically all countries including central examinations, for VET curricula, expected education outcomes are standardized only in some countries. Thirdly, business interest organizations and trade unions, normally enjoy a strong say on what is going on in the vocational tracks relevant to their industries. Fourthly, while general upper-secondary education is mainly funded by the state, the picture of financing and governance is more diverse for VET. Some types such as apprenticeship systems require strong financial contributions by the employers. The variance of these parameters and the different development paths widely explain the persistent national differences in the basic conception of VET in Europe, despite increasing convergence through European and international education policy. Accordingly, VET can be understood as work-based or dual initial training (e.g. Denmark), initial vocational education (e.g. Bulgaria), further training (e.g. Ireland) or as lifelong learning (e.g. Finland) (Cedefop, 2017a, b).

The characteristics, but also the changing nature and role of VET, can to some extent be captured numerically. Benavot (1983) noted a global decline of vocational education in the second half of the 20th century, after a rise in the first half due to technological-economic reasons (such as increasing specialization in production) as well as socio-political reasons (such as the integration of disadvantaged groups). Heused the proportion of full-time students in secondary vocational programmes as an indicator for this development. Globally, this share declined from 24.2% to 16.5% between 1950 and 1975, and in Western Europe from 33.4% to 20.8%. However, the fact that Benavot looks at the entire secondary level suggests that he is not measuring the relative decline of VET, but that the figures confirm other developments. Namely, first, the increase in comprehensive schools as opposed to separate vocational and general schools; second, the shift of vocational education to the upper secondary or post-secondary level;

[1]The Cedefop research looked at two decades of developments, starting 1995. This cut-off-date, chosen to ensure comparability, was treated with some flexibility: In some countries important changes had taken place in the years immediately preceding 1995 and were therefore taken into account. This applies in particular to the countries of the former Eastern bloc.

and third, the increase in the compulsory school age or extension of lower secondary education. The latter in particular could explain a large part of the shifts in relative share.

If we look at a more recent period for which comparable data are available, we see that even there, on average, there was initially a decline or stagnation in VET. Between 1998 and 2015, in Europe (EU-28), the proportion of people in VET at upper secondary level relative to all people at upper secondary level fell from over 55% to below 50% (Cedefop, 2018). On the one hand, it is important to note that this decline is attributable to a few large countries, such as Germany, France, the United Kingdom, Italy and Poland, and on the other hand, it reveals an interesting convergence between countries: Over the last 20 years, the proportion of people in VET has declined mainly in those countries where it was particularly high (around over 70%), while it has increased in countries where it was traditionally low (below 30%). This is particularly illustrated when comparing the Visegrád states (where we observe a relative decrease in initial vocational education and training) with the Western Mediterranean states (where we observe a relative increase in initial vocational education and training) (Cedefop, 2020; Markowitsch & Hefler, 2019).

A similar pattern can be seen for the supposed core area of vocational education and training, dual training. In countries with a focus on dual VET (e.g. Denmark and Germany) and those with hybrid systems (e.g. Austria and the Netherlands), dual VET has tended to decline compared to school-based VET. On the other hand, participation in dual training programmes has increased in those countries that previously had only marginal dual systems (e.g. Hungary, France or, more recently, Spain). So, while there seems to have been an overall trend in Europe for some time now away from shorter, more practical training at secondary level (without access to higher education) towards school-based vocational education and training (with connection to higher education), this presents itself very differently for the individual countries depending on their starting position (compare also the country analysis for the Netherlands, Switzerland, Hungary and Poland in this volume).

The new emphasis on apprenticeship programmes and the fact that vocational and work-based learning is becoming more prominent in higher education has led to the paradox that we see falling numbers of VET in statistics while we see more vocational and work-based elements in general and higher education. A paradox which can be explained by the fact that a narrow conception of VET as a particular sector of the education system, limited to formal learning and focused on initial VET (as used in statistics) is increasingly being replaced by a broader understanding of VET as cross-sectoral concept, covering formal and non-formal learning as well as initial and continuing VET (Cedefop, 2020; Markowitsch, 2021).

The formation of this broader conceptualization VET can be largely attributed to the long-term diversification of VET provisions which in turn reflects the responsiveness of VET to changing labour markets and work places (Markowitsch & Chan, 2021). In the early 1990s the OECD undertook a series of research activities on 'The changing role of vocational and technical education and training (VOTEC)' which included a review of policies in OECD member countries during the past two decades. Based on this research Durand-Drouhin and Bertrand (1995) claimed that VET, apart from adapting to constantly changing and unpredictable requirements for skilled labour, increasingly had to adopt to growing demands for higher levels of education and for more diversified and individualized learning processes and pathways. They saw this as leading to a decentralization of VET governance, a declining role of central governments in educational planning, a more active participation of industry in the design and provision of VET, and finally in the development of training in enterprises and in private

institutions and the related emergence of a training market. Furthermore, they pointed to the likely diversification of training programmes and pathways, the broadening of curricula, the increased duration of initial training and in some countries to the modularization of training and competence-based learning and assessment (Durand-Drouhin & Bertrand, 1995). Many of these findings were confirmed in a study by Green, Leney, and Wolf (1999) investigating the evolution of VET systems of the EU-15 from the early 1980s to the mid-1990s. They concluded that the role played by vocational upper-secondary programmes was changing, functioning less as direct preparation for the labour market and increasingly as a pathway into further education and training, with a corresponding change towards more general content as well as a reduction in the number of distinct vocational options. However, they also found increasing diversification of pathways mainly through the creation of formal pathways between vocational and general programmes as a means of enabling vocational students to proceed to higher levels. As we will see below, many of these trends have continued for the following decades, from 1995 to 2015, pointing towards a slow but sustainable transformation of VET.

MAJOR TRENDS AND TENSIONS IN VET IN EUROPE SINCE 1995

The diversity of VET systems has been dealt with by different authors resulting in a range of different typologies of national VET and education systems (for excellent overviews see: Bosch (2016), Gonon (2016) or Rageth and Renold (2017)). Instead of applying a pre-defined typology of countries, the Cedefop study described and compared VET systems (between countries and over time) based on three different and partly overlapping perspectives: an epistemological-pedagogical perspective, an education system perspective and a socioeconomic or labour market perspective (for details see Cedefop, 2017a, b).

From an **epistemological-pedagogical perspective,** it can be argued that vocational education is rooted in distinctive modes of understanding, generating, (re)presenting and transferring knowledge. Associated with particular ways of teaching and learning, VET is traditionally associated with practical knowledge (know-how, skills) based on leaning by doing and happening through socialization in communities of practice. A key question, of course, is whether this situated and sometimes implicit knowledge-formation is replaced by other forms of knowledge or remains dominant (on this issue see also Wittig's contribution in this volume). An **education system perspective** looks at the long-term evolution of VET institutions. In this perspective, the types and levels of provision, the governance mechanisms and funding sources come to the fore. This perspective also focusses on the status of learners (whether students in education or apprentices holding employment contracts with employers), the type of learners included (initial training for young people or continuing training for adults). The focus on VET institutions also raises questions regarding the relationship of VET to other parts of education, notably whether transfer and progression is possible. Using a **socioeconomic or labour market perspective**, the wider functions of VET are considered. For instance, the ways in which it contributes to social stratification by providing access to particular career pathways and to the skills, competences and attitudes demanded by companies and their work systems, allowing workers to meet the challenges of their workplaces, while workplaces at the same time can allow for the acquisition of skills.

This three-perspective model of VET builds on previous conceptual frameworks (Billett, 2011; Moodie, 2008; Rojewski, 2002, 2009). The three perspectives have been further split into

detailed dimensions and features for which both qualitative and quantitative indicators have been defined (Cedefop, 2017b, 2020). Using these indicators, changes in VET were subsequently scrutinized on the basis of a combination of statistical analyses (e.g. the European Labour Force Survey), country case studies (e.g. on the development of higher VET), surveys of VET experts and stakeholders as well as extensive analysis of existing national data (e.g. time series analyses of VET pathways). We can only give a synopsis of the findings here, for a full documentation of the results see the publication series at the project website[2].

From the **epistemological-pedagogical perspective**, VET traditionally tended to be identified in terms of job-specific, on-the-job learning and was separated from general education. Developments since the mid-90s point to a crossing of the boundary between schools and workplaces has taken place. As part of the integration of VET into public education systems, the role of general subjects like maths, science and languages have increased in importance, significantly influencing teaching and assessment methods. This 'academic drift' is in some cases seen as threatening and has resulted in a parallel 'vocational drift' seeking to 'bring back' and strengthen practice-based learning and apprenticeships. This mixing (and tension) between different aspects of knowledge and skills, and their corresponding pedagogical approaches, has also been observed at higher levels (for illustration see also Broek's contribution about the Netherlands in this volume). For instance, on-the-job learning has increasingly been integrated into vocationally oriented education and training at higher levels, e.g. as internships or as new formats of dual or apprenticeship training. On the other hand, there are also indications that 'academic' principles or research competences have been more strongly emphasised in professional HE in some countries. Increasing emphasis has been given to VET qualifications that are based on learning outcomes. This shift (in principle) allows for more individualised learning pathways and for a wider variety of teaching methods. Crucially it also allows for the recognition of prior and informal learning, sending an important signal about the value of learning at work and outside classrooms. In many countries the number of occupational profiles or qualifications has decreased, reflecting a broadening of content. By reducing the focus on specialised (and shorter-lived) technical specific skills, the role played by generic and transversal skills has increased. In some cases, this is seen to result in hybrid programmes literally bridging general and vocational programmes. Modularisation of programmes at upper-secondary level and for adults has also influenced the content-profile of VET, increasing the flexibility of VET and enabling individuals to determine more individualised pathways, for example in terms of the sequence in which modules are taken.

From and **education system perspective** VET has traditionally been embedded in and led by the different industries and sectors it has served. The attractiveness of VET outside the labour market was often relatively low, with few opportunities for VET graduates to progress beyond their initial training. In the last 20 years, this fragmentation has been replaced by more coherent VET systems fully integrated within national systems (see also the evolution of the Swiss VET analyzed by Bonoli and Gonon in this volume). The gradual emergence of comprehensive national qualifications frameworks illustrates this, demonstrating how VET qualifications are placed in the overall, national qualifications system. New opportunities to move between VET

[2]https://www.cedefop.europa.eu/en/events-and-projects/projects/changing-nature-and-role-vocational-education-and-training-vet-europe/publications (accessed 5 Nov 2021).

and general programmes (and vice versa) have been created and 'dead-end' programmes have largely (formally if not always de facto) been removed. An increased focus on general subjects and transversal skills, accompanied (and partly caused) by a reduction in the overall number of qualifications, have in some cases led to the creation of hybrid institutions serving both VET and general education. VET has clearly expanded out of its traditional 'heartland' at the upper-secondary level of education. On the one hand, VET and apprenticeships have been expanded to lower levels and pre-VET programmes have often been designed to assist students from socially disadvantaged backgrounds. On the other hand, many European countries now have introduced separate strands of higher education or have added new vocationally or professionally oriented higher-level degree programmes (professional HE) to their offers, in most cases creating a 'binary system'. Many countries also offer higher level vocationally oriented education and training outside higher education (higher VET), which includes a variety of different types of programmes and qualifications (Cedefop, 2019).

Looking at VET in terms of its wider **socio-economic** functions, there have been increasing efforts to enhance its responsiveness to labour market needs in response to globalization, technological change and the need to maintain the competitiveness of national and European industries. VET has also played a key role in addressing the rises in unemployment, in particular among young people, that followed the 2008 economic crisis. VET, it was argued, will in many cases provide the best basis for employment and integration into the labour market. While policies in the late 1990s and early 2000 focused very much on the need to expand academic higher education, the post-crisis policies increasingly acknowledged the critical role to be played by practice-based education in general and VET in particular (compare Hogarth's article in this volume).

VET has also responded to the challenges posed by demography. During the last 20 years the steady ageing of Europe's population has become a significant policy issue, prompting an increase in the retirement age in some countries, and people are remaining fitter and able to work for much longer than used to be the case. Especially in Central and Eastern Europe, there has been a decline in the youth cohort because of emigration and/or falling birth rates resulting in serious skills shortages, which were offset only to some degree by (work) immigration from third countries (e.g. Ukrainians in Poland). As pointed out for Poland by Markowitsch and Dębowski (2022, forthcoming) the increasing shortage of skilled workers after overcoming the economic crisis has led to a 'renaissance of vocational education and training', ending a long phase of 'de-vocationalisation' that has lasted since the fall of the Iron Curtain (see also the contribution by Benke and Rachwał in this volume). Elsewhere, falling student numbers have also led VET schools to focus on CVET and to broaden their offer to adult learners. For instance, in the Netherlands, VET centres are offering more flexible delivery and modular courses to make VET more attractive to adult learners and there are ongoing policy discussions about establishing incentives for adults to enter VET (see also Broek's contributions in this volume).

In general, **and bringing together the three perspectives,** European VET systems have become more flexible, with people increasingly able to pass in and out of learning throughout their lifetimes. It is also evident that VET has been increasingly seen in policy as a means of achieving a variety of goals beyond ensuring a supply of skills for the labour market, such as combating youth unemployment or tackling early school leaving (on the changing relevance of the main aims of VET over time see Bonoli and Gonon in this volume). Evidently, such trends run counter to other developments. For instance, the increasing challenge for VET providers to

find sufficient company training places or internships compared to the number of potential apprentices or trainees. The constraints put on public finances following the financial crisis have meant that the demands placed upon VET have tended to go up as the resources available to deal with them have gone down. Generally, VET is expected to 'do more with less'. This illustrates the complexity of the pressures on VET and of VET's response. So, what outcomes can we expect from such a dynamic for the future of national VET systems in Europe?

FUTURE SCENARIOS: PLURALISTIC, DISTINCTIVE AND SPECIAL-PURPOSE VET

For the outlook on VET in Europe, the project analyzed in detail other national and international scenario studies in the education sector from the last two decades, conducted a non-representative online survey of around 1,500 VET experts in Europe and organised an international scenario workshop[3].

The analysis of previous scenario projects (e.g. Cedefop, 2002) showed that earlier projects modelled VET almost exclusively in one-sided dependence on external factors such as economic or technological development (see also the contribution of Grollmann and Markowitsch in this volume). **Changes within VET** and **the relationship of VET to general education**, on the other hand, were only insufficiently taken into account. These two aspects represented, accordingly, central reference points for the scenarios developed in this project.

The observed changes in the relationship between vocational and general education can be roughly characterised as the 'academisation' of VET and the 'vocationalisation' of general education. Examples of both developments can be found in Europe as we have seen above and also within individual countries as illustrated in the contributions on the Netherlands, Switzerland, Poland and Hungary in this volume. For example, in some countries work-oriented elements (e.g. internships, case-based learning) are increasing in school and higher education. In contrast, in VET, for example, a decline in participation in VET at secondary level and increasing focus on academic knowledge in training can be observed.

Contrasting trends are also evident *within* VET. On the one hand, there is an increasing diversification of vocational forms of learning (in terms of learning locations and learning approaches), a blurring of the boundaries between vocational and general content and a merging of educational sectors; on the other hand, there is an increasingly strong anchoring of duality as a central principle of vocational education and training as well as a sector of higher vocational education and training that is slowly making its mark. A diversification of VET, at the end of which there is a 'pluralised' VET, is thus contrasted with a sharpening of the profile of VET, which leads to a 'distinctive' VET, which clearly distinguishes itself from academic traditions.

Taking these developments into account, three scenarios were unfolded on the basis of the scenario workshop and the survey (see also Fig. 1):

[3]The one-day workshop, which took place in Vienna in July 2018, was attended by 25 experts from VET research and policy from 14 different countries. The online survey was conducted in spring 2018. Participation was relatively balanced across Europe and included participants from 30 countries. The questions, which were mostly closed ones, referred to both past developments (1995–2015) and future developments (up to 2035).

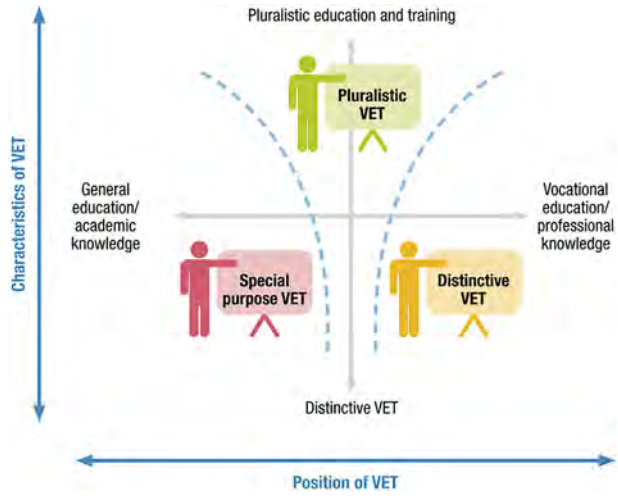

Fig. 1. Three scenarios for the vocational education and training in 2035
Source: Cedefop 2020, p. 200.

1. **Pluralised VET** with lifelong learning as a central feature, in which the distinction between VET and general education becomes increasingly obsolete.
2. **Distinctive VET** with vocational competence as the central reference point and a clear demarcation from general education.
3. **Purpose-specific VET**, which in practice plays only a marginal role in the education system and is limited to job-specific qualifications.

In the following, we outline central characteristics of these three scenarios (for more comprehensive descriptions as well as a set of six more detailed scenarios see Cedefop, 2020, for a critical appraisal of the scenarios from the point of view of the sociology of convention see Marhuenda's contribution in this volume). The scenarios aim to integrate developments from different Member States and thus to stimulate national and European policy discussions.

Lifelong learning at heart: pluralised VET

In this scenario, VET takes place at all levels and in all institutional contexts, including general education and higher education, and is part of a comprehensive concept of lifelong learning. VET as a separate and specific sub-system has largely disappeared and the former boundaries between VET and general education have become blurred. The focus of education policy is on the development of generic skills and generic competences to accommodate rapid technological and economic change. At the same time, continuing education and training is experiencing a significant increase in importance and the target groups of VET are massively expanding. Learning is increasingly taking place individually and in the form of project and problem-oriented learning. Lifelong learning often takes place in a flexible system of recognition of learning achievements, with other civil society actors involved in the governance alongside the social partners. Policies at EU level support the transparency and transferability of qualifications.

However, the high degree of flexibility in training pathways makes coordination and regulation a constant challenge, as there is a risk of fragmentation and rising inequality.

Occupational and professional competence at heart: distinctive VET

In this scenario, VET emerges strengthened from reforms and developments of the 2020s. Various crises and advancing digitalisation have underlined the importance of developing broad vocational competence, and work-based learning around the requirements of well-defined occupations becomes a central element of the education system and is recognised as the basis for renewal and innovation. The main target group of VET is young people in initial education and training, to whom VET pathways are open at all levels, including qualifications at level 8 of the European Qualifications Framework. VET thus enjoys the same esteem as the general education pathway. The main objective of VET policy is to establish work-based learning as the 'gold standard'. In addition to the social partners, the EU supports the distinctive VET model by promoting cross-border cooperation (e.g. by centres of vocational excellence), but also through European agreements on occupations and sectors that set uniform standards. In this scenario, the main political challenge is that VET cannot always cope with rapid technological and work organisation change and the stability of occupations is constantly questioned.

Job-oriented training at the heart: special purpose VET

The focus of VET in this scenario is on publicly funded retraining and further and advanced training for individual jobs, often with reference to short- and medium-term labour market needs and imbalances. The central concern here is labour market integration or maintaining employability, which means that the image of VET among young people is strongly linked to this function and new forms of VET have difficulties competing with other education and training sectors. VET interventions are undergoing major changes in content as they are geared towards rapidly changing jobs and workplaces. In this scenario, the development of basic skills and key qualifications is the responsibility of general education and higher education. The target group for VET is increasingly adults who need rapid retraining or skills development, especially if they are at risk of unemployment and social exclusion. Training courses and seminars, delivered by a growing variety of training providers, are the predominant form of learning. The governance of provision is based on compromises between labour market actors and the labour market administration, while the education administration plays a subordinate role. EU-level policy focuses on transparency and transferability of qualifications in the context of labour market policies. In this scenario, there is a risk that the importance of VET in building basic and key competences is underestimated.

OUTLINE: USE OF THE SCENARIOS AND ONGOING WORK ON THE FUTURE OF VET

Our analysis, but also the contribution of Bonoli and Gonon in this volume, show that fundamental changes concerning VET, such as its importance and status within the overall education and skill formation system or the relationship between its main aims (economic, educational, social) require a longer observation period of at least two or three decades. Clearly,

short-term shocks, such as the recent Covid-19 or economic crisis, or earlier the Sputnik shock and the oil crisis, have the potential to reverse trends in this regard, although they never call into question VET as an institution in general. From the research point of view, a central lesson for policy follows from this: Despite the priority that must inevitably be given to acute problems (e.g. offering distance learning or finding solutions for lost training places), more medium- and long-term goals and visions are also needed to help shape the transformation of VET.

Scenarios, although rarely used in VET so far, can support policy makers in better understanding and addressing these medium and long-term challenges. A key added value, according to national and European stakeholders being presented to the above scenarios, is their ability to challenge taken for granted ways of thinking, notably by moving beyond the traditional institutional and national dividing lines. Very much reflecting the multi-perspective model underpinning the research, the above scenarios also makes it possible to reflect more systematically on alternative development paths and how these are influenced by different policy priorities.

Cedefop aims to further explore the potential of the scenarios as a catalyst for innovations and strategies in VET. To this end, national scenario workshops are planned from 2022 on. Furthermore, many insights gained into the understanding of how VET systems work need to be sharpened in future research, in particular at the level of content and institutions. For instance, we have evidence that the dividing line between VET and general upper secondary education is blurring pointing towards the pluralistic scenario, but we do not know the overall size, role and impact of 'combined' institutions delivering double and/or hybrid programmes and qualifications. Our previous research clearly indicated a growing diversity of IVET programmes, but many of them seem to operate in 'the shadow' of dominating national models and can only be found at regional, sectoral and local level. Also, it seems obvious that transversal skills (i.e. soft skills, 21st Century-skills or key competences) have become increasingly important in the education policy discourse, but it is less clear how they are integrated into VET curricula, learned and assessed and whether they replace general or vocational subjects. The analysis of these changes is, of course, complicated by the fact that the categories of analysis themselves are in flux. What counts as vocational or general is not written in stone. For instance, ICT and financial literacy training which was viewed in the past as a vocational subject, are now often considered as a general component of VET. Based on these research activities, we will soon be able to report on these issues, new experiences with the scenarios and the long-term implications of the COVID crisis.

It should finally be noted that many of the challenges faced by European VET systems are of a global nature, underlining that long-term strategies require international dialogue and cooperation. The development and continuous updating of scenarios can play a key role in addressing common challenges and opportunities, reflecting that VET cannot be taken forward exclusively at national level.

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