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## **The changing nature and role of European vocational education and training (VET) – common challenges and their responses <sup>(1)</sup>**

### **1. Introduction**

This note presents findings from the Cedefop-project on the ‘Changing nature and role of VET in Europe’<sup>(i)</sup>. Based on a multi-faceted <sup>(ii)</sup> analysis of developments during the last two decades, the aim of the project is to contribute to a better understanding of the challenges facing European VET today. The project supports the ongoing European cooperation in VET, initiated through the 2002 Copenhagen-process and currently taken forward through the Education and Training 2020 cooperation framework. This note <sup>(iii)</sup> will briefly discuss the following questions:

- Which are the main common features of national VET developments from the 1990s and until today?
- Which patterns of divergence and convergence can we observe?
- Which are the key challenges facing European VET systems today?
- Which are the possible responses to these challenges?

These questions draw attention to the responsiveness of national VET systems to external changes, notably those caused by economic, technological and demographic developments. While we can observe significant divergences between countries in terms of how they respond to these changes, the research also points to important similarities and convergences.

### **2. Looking back – rapidly changing VET-systems**

Looking back to the late 1980s, VET was in many countries concerned with the provision of education and training to a relatively narrow range of industries, notably in manufacturing and construction. In many countries provision was fragmented and only to a limited extent linked to other parts of the national education and training system. During the 1990s, reflecting the decline in employment in traditional industries and a rapid growth in service-sector employment, we can observe a break with the past that significantly affects the delivery and nature of VET. During this period we observe an integration of VET into the formal education and trainings systems, in important respects clarifying the role of VET in relation to other parts of the education and training system. While countries differ in important respects, a ‘common direction of travel’ can be identified, pointing to areas where significant change can be observed during the last two decades.

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<sup>(1)</sup> This note builds on the report for Work Assignment 2 of the ‘Changing nature and role of VET in Europe project’ written by Terence Hogarth, FGB. The complete report will be published by Cedefop early 2018.

**Table 1. VET in the early 1990s compared with today**

	<b>Early 1990s</b>	<b>Mid 2010s</b>
<b>VET as formal part of the education system</b>	Emerging from the fragmented provision of largely industry led training	A coherent system of VET fully integrated into national qualification systems (and made visible through national qualification frameworks)
<b>Attractiveness of VET</b>	Strong labour market relevance and attractiveness in some sectors, but overall limited attractiveness due to limited progression opportunities (VET as dead-end)	Still lower attractiveness than general education but has turned into a main-stream choice at upper secondary level
<b>Standard setting</b>	Often in the hands of specific industry who set their own standards	Centralised control of standard setting with some autonomy granted to vocational schools / regional authorities
<b>Competence based approaches</b>	Only just being established	Now an accepted part of the VET system
<b>The prioritisation of work placed and/or work-based learning</b>	While recognised as advantageous in some countries and sectors, also contested by some.	The preferred means of delivering VET in many countries
<b>Skills anticipation</b>	Not much in evidence; piecemeal approaches	Increasingly integrated systems being put in place
<b>Recognition and validation of learning acquired outside of formal education system</b>	Not much in evidence	An integral part of the VET system in many countries
<b>Higher level VET / progression to higher education</b>	Not much in evidence	Still patchy, but an active area of policy development

Source: Changing nature and role of VET..

A somewhat surprising observation is the rather recent introduction in several countries of coherent VET systems fully integrated into the overall education and training systems. National reforms (exemplified by Finland 1996, the Netherlands 1996 and Norway 1994) explicitly focussed on the need to increase capacity, to extend coverage and to connect hitherto fragmented provisions. A further important change is related to the competence (or learning outcomes) orientation of national VET systems. The shift to competence based approaches forms an important (but not very visible) part of an overall re-orientation of national VET-systems, also influencing the increasing importance attributed to validation and recognition of prior learning. It can also be argued that the focus on competences also strengthens the awareness of experiential learning; paving the way for policies and practises giving higher priority to work place and work based models of learning

Table 2 indicates the sequencing of this transformation-process. It indicates the hive of activity – much of it at European level – that has shaped the way in which VET systems have responded to change

**Table 1.2: Major developments in VET from the 1990s onwards**

Timeline →	1990	1995	2000	2005	2015
Establishing the VET system	The integration of VET in the education system as a mainstream choice upon completion of lower secondary education				
Major thrust in building participation	Increasing participation levels in VET especially where little previous history of delivering, for example, apprenticeships				
Emphasis on WBL	Increased emphasis on workplace based learning as a relatively effective means of delivering skills				
Increased emphasis on skills matching	Major developments in trying to better match skills supply to skills demand				
Developing a competence based approach	Creating a competence based systems		Introduction of qualification frameworks that recognise competence		
Focus on transversal skill needs				EQF / NQF Broadening occupational skill profiles Increased recognition of transversal skills (especially digital ones in the context of Industry 4.0) Austerity affects VET budgets leading to some rationalisation of provision	
Consolidation of the VET market for training	Importance of finding ways to accredit skills learning outside of formal learning			Increased emphasis on CVET within the formal VET system	
Skills supply				Substantial boost to skills supply with accession of nine countries to EU Further boost to skills supply with inflow of refugees to EU	
The push to higher level VET	Push toward provision of VET at higher levels				

Source: Authors

### 3. Patterns of convergence and divergence

Adaptation to change is handled differently by countries, reflecting their varying starting points. The most dramatic changes can be observed in the former Soviet bloc countries where a total re-invention of VET systems took place during the 1990s. Another group of countries, exemplified by the UK, Finland, the Netherlands and Norway, went through major reforms, in effect re-orienting their VET systems. Finally, as exemplified by Germany, some countries give priority to incremental developments, underlining the importance of stability. A number of factors are evident.

- IVET today, in many countries, looks very different to how it looked at the beginning of the 1990s. Even if VET-esteem is not as high as that of general/academic education, VET has matured over time into a major constituent part of the formal education system. This of course differs by country, but it must be noted that VET is a more established part of the formal education system today than what was the case in the late 1980s and early 1990s.
- VET appears to go in and out of fashion over time. The 2010s has proved to be a period of increased visibility of and public policy interest in VET. In part this is a response to increasing concerns about the degree of skill mismatch in the economy. It also reflects the dramatic increase in youth unemployment seen in several European countries, and the potential role of VET in helping to address this. But at other junctures there has been much less public policy interest in VET; especially so during the 1990s and 2000s when, for some countries, priority was given to boosting participation in higher education.
- As regards VET-governance, the balancing of centralised and decentralised approaches is a key-concern. Countries such as the Netherlands, Italy, and the UK illustrate shifts in where more autonomy is granted to the regional and local levels (even to individual vocational schools or colleges). While differing in pace and detail, we overall observe a pressure to grant parts of the VET system more autonomy. This is generally seen as a condition for being able to respond to (local and regional) labour market needs.
- The implication of a shift towards more autonomy as regards the definition of standards (through curriculum and course design) is not clear. A key question is whether this results in a broadening or narrowing of the education and training provided? A possible outcome may be the narrowing of the scope of some courses. This, to some extent, is countered by the need to include more transversal skills in VET courses. Recent comparative studies (Cedefop 2017) of the content and profile of VET-qualifications, illustrate how countries diverge as regards the balancing of occupational specific and transversal skills and competences. This particular point is of importance to the 'future-assurance' of VET systems as it influences the ability of the VET system to educate and train people to actively adapt to change.
- Arguably the increased autonomy key institutions in the VET system have acquired over time - and the flexibility it potentially confers - means that the VET system is better placed to respond to changes in the labour market and economy. In some countries this potentially allows change to be introduced in curricula relatively quickly, in others less so. There is a tension here between being able to speedily adapt courses with the attendant

risk that the skills they provide quickly become obsolescent. Courses based on broader foundations may provide more flexibility in accommodating change, but may also be vulnerable to different local interpretations and varying degrees of implementation. The research carried out by the “Changing role of VET in Europe project” is instructive; for example through the comparison of UK-England (operating with detailed and specific standards) with countries such as Netherlands and Finland (operating with broader standards).

- Recent technological changes (digitalisation etc.) have resulted in some VET schools struggling to keep pace with the rate of change. They are expected to equip people with skills that are in short-supply in the labour market and have access to the latest technologies. The economic climate of austerity and its impact on public finances also means that they have more limited resources to respond to change, especially technical change. There is indicative evidence that vocational schools in several countries are moving closer to employers – or are being encouraged to do so – in an effort to address this. The increasing emphasis given to apprenticeships in public policies (national as well as European) can be seen as providing part of the answer to this.
- Demographic change directly influences the provision of VET. In a majority of countries we observe a decline in the number of young people potentially starting VET. While international data (UOE) point to a decline in the proportion of young people choosing VET programmes at upper secondary level (dropping from 60,5% in 2004/2005 to 50% in 2012), a reassessment of national data (Cedefop 2018, forthcoming) indicates a more stable situation where VET has retained its relative position, also in light of demographic changes. The different pictures drawn by international and national data seems to reflect uncertainties in classification and categorisation; an increasing number of VET courses combine general and vocational orientation and this blurring of borderlines influences statistics.
- Over time – though to different degrees in different countries – VET providers are being pushed into a market environment. In some cases, their continued survival depends upon them being able to capture a sufficient market share to make the service they provide sustainable. This should not be over-stated and the difference between, for example, the UK and, say, Norway or Finland is substantial in this regard. But the notion of making the VET system responsive to the labour market implicitly implies, in some countries, that VET providers need to deliver something the market needs or face the consequences.
- In many countries we can observe that VET is being extended beyond upper secondary level. This is partly about ensuring the attractiveness of VET to young people (‘VET is not a dead-end’) but also about meeting the need for advanced vocational skills and competences at higher levels. Countries vary as regards institutional solutions in this area. Some embed VET within existing higher education institutions and structures; some develop parallel tracks; and some go for a mixture of the two. We observe a degree of policy experimentation taking place in some countries but not necessarily a common trend. We also observe a tension between what can be characterised as ‘academic drift’ on the one hand and ‘vocational drift’ on the other. In practical terms this
- CVET has been, to a large extent, a private investment decision for, respectively, employers and individuals. Although this situation continues to prevail, it is noticeable

that the division between IVET and CVET has become less well defined over time. This is mainly a consequence of labour markets becoming more flexible and people being expected to spend longer in them before retiring. This creates a concomitant need for the skills of the workforce to be replenished over time; a need which is not necessarily met by in-company CVET (especially in more flexible labour markets) but which can be fulfilled by various IVET programmes.

#### **4. Key challenges**

The analysis of VET developments over the last few decades points to divergences as well as convergences. It is important to keep in mind that VET-systems primarily have developed in a national (as well as regional and local) context; something which is reflected in institutional as well as pedagogical choices. The analysis, however, also points to a common set of challenges facing VET systems in all (or most) countries.

- All countries face the challenge of developing the capacity of the VET system so that it is better able to meet the needs of the labour market. This can to some extent be captured as a shift towards demand-led provisions, influencing both the size of the system and the content of the education and training being provided.
- Increasing the attractiveness of VET is a key concern in all countries, to both would-be vocational students and employers.
- The issue of attractiveness is becoming more acute in light of demographic developments where the size of youth-cohorts drops and where the competition with other parts of the education and training system increases.
- All countries face the challenge of responding to the changes resulting from technological change with respect to both mitigating the impact of skills obsolescence and ensuring that the demand for new skills in new jobs is met.
- It is critical to ensure that those employed in vocational schools possess the necessary technical knowledge and have access to the latest technologies so that the teaching they deliver is relevant to the needs of industry.
- Maintaining a balance between provision of broad based education, referring to transversal skills and competences, and skills for a specific, narrowly defined occupation is becoming increasingly important. VET systems need to set priorities reflecting the challenges posed by structural and technological changes in occupations and sectors.
- Countries are facing the challenge of being able to do more with less given the pressure on public finances that has reduced, in many instances, funding for IVET.

#### **5. Looking to the future – the responses**

Based on the preliminary findings of the Cedefop research, a number of common responses to the above challenges can be identified. While emphasised differently in countries, they indicate some shared priorities.

- Demographic developments will increasingly require a reorientation of systems towards lifelong learning, potentially further blurring the distinction between initial and continuing VET. The reorientation of systems may also require a rethinking of the content and profile of VET programmes and qualifications; for example by giving more space to general and transversal skills and competences.
- Apprenticeship-type training is increasingly being recognised as critical to the future of VET. Apprenticeships (and work based learning in general) are seen as particularly effective means of linking training to the needs of the labour market. This learning format is also seen as essential for developing labour market relevant competences where theoretical knowledge are applied to concrete situations. The future development of the apprenticeship-type training, however, has to take into account how to balance transversal and occupational specific skills and competences. Expanding the use of work-based learning in higher education could open up to a further strengthening of this approach.
- We observe efforts to increase the participation of industry/employers in VET so that students have access to the latest technologies (i.e. to those typically not available in vocational schools because of their cost).
- VET at post-secondary and higher education levels are becoming more wide-spread, making it possible for upper-secondary VET-candidates to continue education at higher levels (either in or outside the VET stream).
- In a majority of countries, we observe a shift towards outcome/competence based system of IVET. This often results in a reduction of the number of qualifications and VET profiles offered, emphasising the need for broader competence profiles. In a few countries we observe the opposite tendency, illustrated by a proliferation in the number of qualifications on offer.
- Partly as a reflection of the shift towards competence oriented systems we observe a reconfiguring of the dialogue between industry and the VET system in specifying competences and curricula. This is sometimes reflected in giving employers more say over the content of VET.
- Increased attention is given to skill anticipation systems and the need for systematic review and renewal of qualifications and programmes; reflecting the increasing rate of technological and structural change in the labour market.
- Recognition/validation of existing skills has assumed greater importance in many countries. This is becoming a concrete part of lifelong learning strategies in a number of countries and has recently been actualised through the need to identify and assess the skills of migrants.
- The introduction of qualification frameworks in the last decade has increased the visibility of VET, including VET at higher levels (EQF levels 5-8).

## **6. Some concluding remarks**

Vocational education and training plays a key role in addressing the skills demands of European labour markets and societies. Close to 50% of all European students attending

upper secondary education (EQF levels 3 and 4) take part in vocational education and training, amounting to more than 10 million students annually. In 2016 close to 50% of all European employees held a qualification at medium level, predominantly a vocational one. Cedefop's skills forecasts predict that medium level vocational qualifications overall seem to retain their relative position in the labour market. Whether this forecast will hold, however, depends on the choices made at national and European level in the coming years. There are different views on the future of VET:

- Reflecting tendencies towards automation and job-polarisation there are concerns that demand for medium-level skills will start to drop. While there is still a significant demand for replacing jobs at medium skills-levels in most sectors of the economy, the extent to which future jobs will require these skills are seen as uncertain.
- Reflecting demographic developments and an ageing European population, it is possible to envisage an increased demand for medium-level skills related (for example) to health, social and personal services. Skilled jobs in these areas are less likely to be replaced by machines and will also in the future require middle-level, vocational qualifications and skills.

While only providing a glimpse into the detailed material now being gathered by the project, the broad outline presented in this note may support discussions on the future of European policy cooperation in this area. While VET in many respects is a national concern and responsibility, the note illustrates that many challenges, and also responses, are shared.

Cedefop will publish material from the project on its web-site. The two first research papers are already on-line and further publications will be added as soon as they are finalised.

<http://www.cedefop.europa.eu/en/events-and-projects/projects/changing-nature-and-role-vocational-education-and-training-vet-europe>

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(<sup>1</sup>) Cedefop has awarded a contract to 3s Unternehmensberatung GmbH, Austria, to coordinate the research. 3S works with the Danish Technological Institute (DTI), Denmark, the Institute of Employment Research (IER), University of Warwick, UK, the Institute of International and Social Studies (IISS), Tallinn University, Estonia and Fondazione Giacomo Brodolini (FGB), Italy. The Federal Institute for Vocational Education and Training (BIBB) is a subcontractor. In addition to a core team composed of key experts from the

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consortium partners, a network of more than 100 country experts supports the project team with relevant expertise in the particular fields of the assignments. All in all, the consortium brings together more than 150 leading experts in education, training and labour market in Europe.

(<sup>ii</sup>) The project consists of 6 work assignments: The work is divided into six separate but interlinked assignments:

1. The external drivers influencing VET developments.
2. The role of traditional VET at upper secondary level.
3. VET from a lifelong learning perspective.
4. The role of VET at higher education levels.
5. Scenarios outlining alternative development paths for European VET in the 21st century.

(<sup>iii</sup>) A first note reporting on the findings of the project was presented to the ACVT in April 2017.