Reflections and Research on the Future of VET([1])

Trends in VET in Europe

This Chapter starts with some general considerations regarding the identification of trends, brings together key insights from the four project assignments and, complemented by individual country findings from Chapter 3, compares these insights with the 'big picture' we have drawn in the previous project.

The pendulum effect in Vocational Education and Training

Previous Cedefop research has identified a number of key trends in European VET, e.g. broadening of the conception of VET, blurring of vocational and general education, and the increasing importance of higher VET. Many of these trends, identified at system level, can be confirmed when looking at deeper levels. However, with the new focus of the current project on what's happening at the provider level and how curricula and assessment practices have changed over time, additional complexity has been introduced. At second glance, some of the most important trends seem less clear, even contradictory in some cases.

One reason for this complexity is that the **evolution of VET does not necessarily take place in an unbroken chain of developments leading in one direction but may be interrupted by changes of course and indeed reversals in policies and practices**. For instance, in Poland a long period of 'de-vocationalisation' has been followed by a re-emphasis of VET, like a pendulum swinging back. In Germany and Austria, the effects of academisation are now less pronounced than they were before. However, in both cases, however, the long arm of history and a strong path dependency can also be seen.

Another reason for the increased complexity may be methodological. **The longer the time frame, the more likely we are to observe bigger movements in the pendulum** (some of our analysis covers 1989 until 2022). In fact, an analysis of more than one hundred years of VET history in Switzerland shows how the balance of the different aims of VET - economic, social and educational - has been changing at long intervals of twenty or thirty years, often associated with historic events, such as the two world wars, the 'Sputnik shock' ([2]) and the like (Bonoli & Gonon, 2022). Thus, the trajectories that we simplified as clear uni-directional

([1]) This note contains the draft conclusions of the forthcoming (2023) synthesis report of the Future of VET in Europe project.

([2]) When the Soviet Union launched Sputnik during the Cold War, it was perceived by Western nations as a 'wake-up call' to step up their development of advanced technologies

vectors in the earlier study turn out to be, on a closer inspection and over longer periods of investigation, the markings of a pendulum that is magnetically attracted or repelled between economic, social and educational goals in a multi-dimensional space.

All this shows that **it should not be assumed that existing trends will continue into the future**. Recent events such as the COVID pandemic, the war in Ukraine, the energy crisis and historic inflation highlight the importance of taking a long-term view, and accommodating hard-to-predict developments. Although the contours of these changes are not yet clear it can be expected that some trends, which have been taken for granted for a long time, for instance the increasing number and share of university students and graduates, cannot be simply further extrapolated into the future. This makes it all the more essential that we continue to work on and with scenarios.

A pendulum effect is very visible in the area of assessment. In many countries we saw that an emphasis on standardised external written examinations with a high degree of reliability (that are often introduced to meet the requirements of accountability) has been combined with other forms of assessment that are better suitable to ensure the validity of the assessment and emphasise authenticity such as skills demonstrations at the workplace assessed by senior members of the professional community. Interestingly, for both directions the argument to strengthen the value and image of VET is brought forward. Likewise, the expansion of summative assessment inevitably seems to call for counter-measures to strengthen formative assessment, such as providing better feedback to learners and facilitating the planning of future learning and teaching.

The evidence collected on **the role of general skills and subjects within VET curricula also shows a pendulum movement in many countries** rather than a one-way trend. Although, the majority of countries for which reliable comparative data is available show an expansion of general subjects in curricula of upper-secondary VET (particularly for VET programmes qualifying also for higher education), there are counterexamples. For instance, a recent VET law in Lithuania, reduced general subject knowledge from 80% to 50% in VET programmes. Also, in Norway a recent curriculum reform points to a re-emphasis on vocational skills. The history of VET in England over the last two decades could even be described as a struggle for the balance between occupation-specific and general education content.

Why shifts in the pendulum take place is a difficult question to address. Did previous policies and practices get it so wrong that they had to be reversed or pulled back? Evidently part of the answer lies in the inter-play of the ‘mega-drivers’ that underpin our analysis of change: at different points in time different drivers are important or less important. But equally, such drivers impact policy and practice through the way in which they are interpreted by politicians and policy-makers, causing pendula to swing this way and that at different times depending on the relative weight given to different factors. This is not just a technical matter, but subject to political debate and choice – and the pendulum effect highlights how important it is that VET is informed by high quality evidence to ensure ‘good’ choices are made. To partly answer the question above, policies and practice might not be getting it ‘wrong’: rather the influence of drivers, and the political goals may have changed and/or there may simply be a lack of evidence to inform the policy choices being made. Another factor is also the complexity and difficulties inherent in change itself. Changing course in VET, as in education in general,

may be likened to trying to change course in a supertanker: it takes so long to turn that by the time a new direction is adopted the weather conditions (the drivers) might have shifted.

Vocational education and training is often presented as the antithesis of general education or higher education. However, the comparative analysis presented here points towards a sort of '**dialectic within VET', a deeper, hidden unity or belonging together of the diverse aspects of VET**. As such general subjects and general skills form an essential part of VET, while a changing conception of VET does not leave general education or higher education untouched. Apart from being in contention with general and higher education as a sector, VET in its broader conception is constantly in contention with itself in finding the right balance as regards its key aims, teaching and assessment approaches, its relationship to occupations and employment or the role in society. The three-perspective model and related framework, further developed in this project, provides a tool to clarify different positions and perspectives on VET, to structure debates about it, and to determine the current situation as well as possible and desirable future situations.

Equally, VET does not exist in a vacuum, and **the debates, policies and practices in other domains of education may leak into it along with actual concrete effects**. For example, in the question of VET's status compared to general and higher education, it is unlikely to be 'simply' a question of developing pathways between the respective systems (though that in itself is not a simple matter, as this and many other studies have shown): it is also a question of how far general and higher education, by being the higher status forms of education in most European VET systems, shape debates around matters such as curricula and assessment. Standardised external written examinations are becoming more prominent in VET for several reasons, as just noted, and we cannot exclude the possibility that one reason may be the status attached to this form of assessment compared to teacher-marked assessments and work demonstrations in some countries. Debates around this topic swirled around general secondary level qualifications in UK-England during a recent period of reform.

Increasing institutional diversification, autonomy and expansion despite unfavourable conditions

Looking at economic and labour market developments in the last three decades or so, the conditions for VET, in particular for apprenticeships, have been little conducive. Since the 1980s, there has been a remarkable trend towards a service and knowledge society effecting traditional sectors of VET. The automation and computerisation of the economy, or as it is now called digitalisation, has led to a polarisation of the labour market in many countries, with declines especially in the core segment of VET, namely the middle skill levels. More recently we experience also small, but not neglectable trend of micro-work and platform economies. These 'task markets', in which work is broken down work into bites of a few seconds and cents, do not require extensive training. But despite these and other unfavourable conditions we have observed an expansion of VET already in the previous study.

The current study has been able to examine some aspects of the previous study in greater depth, shedding light on some of the key dimensions of VET. In some cases, we have

confirmed trends whilst in other areas we have been able to probe new aspects. Together, the analysis of institutional features and qualifications helps to illuminate the road ahead for VET.

The number of VET schools has decreased in many countries either due to demographics (pupil number decline) or mergers of schools. In some countries mergers have been a feature even though the number of VET learners is on the increase, with efficiency and effectiveness reasons looming large. There is a pressure to deliver vocational skills more efficiently (achieving better value for money for national exchequers) and it is impossible to escape basic maths in education which means that larger schools can provide more options, a simple feature of class size and pupil-teacher ratios. The scale of and significance of these changes should not be underestimated.

We can confirm that **the number of VET qualifications over time has decreased** in most countries as already observed in the previous study. However, a reduction in the number of VET qualifications is not necessarily linked to a deliberate broadening of profiles. In some cases, such developments seem to appear 'less planned' and simply reflect changing demand. In countries with relatively stable youth populations and relatively stable shares of VET, such as Austria, France, Germany, the number of qualifications has remained stable. It is clear that relying solely on information on the number of qualifications without further analysis can lead to false assumptions.

VET retains a strong distinct identity at upper-secondary level and, to a lesser extent, at higher levels. Despite the increased demand for general, transferable skills to facilitate labour market mobility across occupations and sectors, and despite some blurring of boundaries between VET and general education there appears to be little evidence of the vocational and general pathways becoming indistinguishable from one another. There have been initiatives which have sought to combine general and vocational pathways, allowing students to pick and choose from each pathway as part of the increased individualisation of learners' education and training programmes, but they are generally small scale and rare across Europe.

A corollary of this is that **whilst hybrid pathways and hybrid schools are becoming more common, they are not a major new trend.** In some countries, it has been the norm for schools in upper secondary education to offer both vocational and general courses (e.g. Finland, Norway and UK-England). In other countries, there has been, and continues to be, strict institutional separation between general and vocational education (e.g. the Netherlands). For others, there has been a degree of policy development over recent years to increase the extent to which learners in one pathway can select options from the other (e.g. Lithuania). But overall, the general stasis with regard to the institutional arrangements for VET seems to highlight a key area of path dependency in VET.

The autonomy of IVET providers has increased in respect of curriculum design and delivery. Schools and training companies (and the teachers and instructors involved) enjoy more space for individual and local adjustment and innovation. This space varies between countries but gives vocational providers the opportunity to tailor their provision to local labour market needs. For example, we could identify the increasing importance of regional VET provision in Italy and Czechia. Increases in the autonomy of providers also often entail the retention of or renewed emphasis on responsibilities at national level. Thus, local decisions

on curricula typically take place in the context of national curricula determined by stakeholders (including social partners), with the scope for local autonomy clearly specified, as in Finland's VET curriculum structure. Rising provider autonomy may imply also a growing emphasis on accountability which in turn may explain the trends towards a growing standardisation of assessment as well as the externalisation of assessment we identified, and the fact that assessment results are used to monitor the performance of VET institutions as part of quality assurance in VET (see further below). The study also found some indications that the overall level of autonomy of IVET providers helps to explain how far they are involved in orientating learning towards adults alongside formal (I)VET programmes (see further below).

An important consequence of greater curriculum autonomy is that it has enabled **increasing modularisation and individualisation** and the use of methods for the **validation of non-formal and informal learning,** which is likely to continue in the future and which is also reflected in assessment. Several countries have introduced more flexible approaches allowing learners to accumulate smaller parts of qualifications that are assessed separately. This highlights the importance of the role of local stakeholders in the development of localised pathways in the context of national frameworks, not least National Qualifications Frameworks. These developments often go hand in hand with an expansion of opportunities for validating and recognising non-formal and informal learning (e.g. work experience) which can be observed in many countries, Modularisation of VET curricula and opening up of VET is particularly notable in school-based VET systems such as the Nordic countries, Baltic states or Portugal.

The 'double upgrade': more general knowledge and skills and more work-based learning

At the level of knowledge and skills, important changes are taking place in VET to meet modern labour market demands. VET's traditional role in developing practical, technical skills for specific occupations is being augmented with a greater emphasis on general knowledge and skills to raise levels of literacy and numeracy, bring in digital skills and to better equip learners with transversal skills like teamwork and critical thinking. VET has probably always been an effective environment in which to learn such transversal skills because work-based learning (especially high-quality work-based learning) will often expose learners to collaboration, problem-solving and to project-based inter-disciplinary working. Indeed, such skills are woven into the fabric of VET in dual system countries where they are key to the concept of 'Beruf', which underpins the whole system. But in many countries they have been acquired tacitly, finding little expression in qualification or curriculum documentation. But now it seems there is a new emphasis on both these general skills and in deepening and expanding opportunities for work-based learning.

There is an **increasing emphasis on both general subjects and transversal skills in VET.** Several countries have strengthened the general education component of VET programmes, and this has taken place either by increasing the extent of teaching general subjects or by better integrating them into the vocational curriculum. An increase in the

occupational skills component is reported only in a few cases and usually due to an initially low level of VET content or shortcomings in the practical skills of VET students. Regarding transversal skills, whilst they are increasingly emphasized in VET policies across Europe, it is difficult to determine the extent to which they have to date been integrated into VET because they are usually not specifically identified in VET qualifications and curricula.

Nonetheless, it is clear **that there are considerable variations in how far transversal skills are integrated into VET programmes.** At first glance, it seems that transversal skills are mostly integrated into general knowledge, but the analysis shows that they are also included in vocational content. And even in cases where transversal skills are considered part of the general subjects of VET, some of them, such as entrepreneurship, career management or digital skills, might be more associated with vocational content. This confirms a previous conclusion (Cedefop, 2020) that an emphasis on transversal skills could be a sign of either vocational or academic drift, depending on the type of skill. Curricula which do not place a strong emphasis on skill types, such as the German framework curricula in the dual system, largely avoid any decomposition into general/vocational, practical/theoretical or transversal/occupation-specific skills. In other cases, e.g. Ireland, transversal skills might be captured specifically in some modules of qualifications/programmes, e.g. team work or entrepreneurship, but there is no systematic national approach to classifying transversal skills, instead the picture varies across qualifications/programmes. More holistic approaches to learning, and increased modularisation and curricular choices for learners (see below) will make future comparative analysis of VET curricula even more difficult.

An increase in workplace learning in IVET curricula has been ubiquitous, although it becomes increasingly difficult to assess the exact extent, due to increased flexibility allowed at provider/individual level in the combination of different learning environments. A parallel increase in workplace learning and general skills development is not a contradiction, because either general skills are more integrated into workplace-related learning, or the extent of general subjects in school can be increased at the expense of theoretical VET content. The emphasis on workplace learning is also reflected in assessment. Skills demonstrations carried out in real work environments are increasingly common and employers or other labour market stakeholders are increasingly involved in the assessment of VET learners.

This sort of "double upgrade" seems to be currently the most preferred solution to raise the attractiveness and quality of VET, with the aims of the recent T-level reform in UK-England presenting a good example. At the same time, one might consider how far expanding both general education content and practical training at the same time is actually an attempt to square a circle and may be pulling the VET pendulum in different directions.

The changing interaction of IVET with CVET and with higher education

The need for workers to update their skills frequently is now well established in the labour market, as is the need for workers to acquire higher levels of skill. Both trends are raising important questions about the role of VET in respect of adults and hence how IVET, where

the bulk of VET provision is concentrated, should best interact with and develop its role in CVET and at higher levels.

Evidence suggests that **across Europe IVET is becoming less and less focused around young people.** For sure, historically, as now, there has been quite some variation between countries in the share of learners who are adults. Currently, there are countries that are mainly youth-centred (more than 60% of VET learners is younger than 20); adult-centred (more than 60% of the learners is 20+); and mixed. However, in all countries IVET on upper secondary or post-secondary includes substantial proportions of young adults (20-24) or adults (25 and older) and these shares are increasing for various reasons (longer schooling, youth guarantee, migrants etc.). Equally, it also needs to be borne in mind that most work-related learning by adults, much of which may meet skills needs but often does not lead to a formal qualification or certificate, has historically not taken place in the formal, state-funded VET system. Hence the wider education and training environment for CVET is very different to that of IVET. This characteristic has arguably been thrown into sharp relief by the recent growth in the use of (digitally-supported) micro-credentials amongst adults.

Despite the expansion in the share of adult learners in IVET programmes**, the role played by IVET providers in up- and reskilling of adults is still limited.** While the study does see a considerable role of IVET providers in up- and reskilling, it cannot be concluded that IVET providers are a dominant player. Overall, the study shows that opening-up IVET for adults is a slow and uneven process across countries and across economic sectors. At the same time, the study shows that across countries, IVET providers can be involved in different types of adult learning and are not necessarily confined by national traditions, though much depends on the degree of autonomy they possess within national structures. Comparisons between countries have the potential to enable policy makers and VET stakeholders to see new opportunities to open up more to adults and to offer more, different and tailored adult learning programmes, in partnership with other organisations.

IVET providers mostly deliver formal VET programmes to adults, i.e. programmes leading to a qualification/certificate. The mapping of countries found that IVET providers are mostly dominant in relation to formal programmes both in VET and general tracks, for instance in Croatia, Spain, Czechia, Malta, Latvia, Hungary, Estonia and the Netherlands. This does not necessarily mean that they always take adult learning principles (e.g. flexible provision) into account. There are also countries where IVET providers do not play a role at all for adults (for instance in Slovakia and Belgium) as there are specific adult education institutes that focus on this task. Also, in Denmark a separate adult education system is responsible for all adult learning and in Portugal, the *Qualifica i*nitiative is the main initiative to support up- and reskilling and uses only some of the facilities of IVET providers.

The **role played by IVET providers** (whether they provide formal, non-formal CVET, basic skills training or even general education) **does not correlate with the share of adults participating in education and training** in general, or more specifically in VET. In countries where the participation is high and the role of IVET providers is limited, countries have established separate systems to serve the adult learners (see for instance Belgium, Denmark or Germany) or learners have their needs met through the private training market, with employers playing an important role in purchasing training.

Strengthening the links to higher levels of education has been a key strategy of many countries to make VET more attractive to students. Sometimes this has been done through providing access to universities offering general studies or to universities of applied science where the focus is sometimes more on higher vocational studies (and which is also motivated by the need to better meet the need for higher skill levels in the economy). This has resulted in some reconfiguration of VET curricula at upper secondary level where it provides, sometimes through the availability of additional modules or extra years of study, the opportunity to meet the entry requirements of higher education institutions. But questionmarks remain about how popular these pathways have become so far (some have been in existence for many years), whether young people still prefer to use IVET for labour market entry and whether there are barriers to transferring into and staying in general higher education (e.g. different pedagogies, different environments) which require students coming from VET to be (better) supported.

Convergence or Divergence? Harmonisation or Diversity?

Despite the growing complexity and apparent contradictions observable in VET (e.g. academic drift at system level, and vocational drift at curriculum level), the ups and downs (e.g. in terms of enrolments) and twist and turns (e.g. in terms of emphasis on general knowledge in VET curricula) which we depicted in the previous study - in short, **the broader picture of trends - can be largely confirmed**. At the same time, along any one dimension of VET it is difficult to see how far we are witnessing convergence or divergence between countries. It is also hard to see whether, within countries, we are witnessing the emergence of more harmonious systems or greater diversity which is setting up unintended tensions.

Besides different policy choices, the reason for this might be partly rooted in the **different economic and social conditions**. Some of them are the same for all countries, while others differ strongly between countries. For instance, aging has been a concern for all countries. In contrast, net emigration and decreasing populations have been major concerns in eastern Europe countries, while the main concern in the south has been youth unemployment. However, the south and the east are catching up with the west and north in terms of GDP and living standards. Western and northern Europe have benefited economically from labour migration from eastern European as well as countries outside Europe. The effects of the war in the Ukraine, the current energy crisis and inflation affects countries in Europe to different degrees and what is considered a common threat may have different implications at country level. Skills shortages and financial pressure forcing VET systems to work efficiently and offer better value for (public) money are among the key drivers of current changes.

In the previous study, based on enrolment data, we observed some **remarkable convergence between countries regarding academic and vocational drift**. In the last three decades, the share of VET at upper secondary level has decreased in countries which had a significant share in the early and mid-1990s, while it has increased significantly in countries with traditionally low shares in VET. This is best illustrated by comparing the trajectories of the Visegrád countries (decreasing shares) with the west Mediterranean countries (increasing shares). However, while the share of those choosing VET in the latter

has continued to grow, the decline of VET in the former seems to have stabilised in the last five to ten years. The same halting of a decline can be observed for countries with dual systems such as Austria and Germany. Reasons for this certainly include changes in skills demand, but probably also a slowing down of the trend towards higher education.

Changes in curricula partly reinforce academic or vocational drift identified in the numbers of enrolment, though not universally. For instance, in Czechia, as in many other countries, we could observe that young people prefer longer, more theoretical VET programmes which provide access to higher education instead of more practical programmes directly preparing for the labour market. At the same time, we have now found that the general subjects taught in these more theoretical programmes have been further expanded, fostering academic drift, while the same has not happened for more practical programmes, arguably increasing the difference between these types of programme.

In almost all countries **school-based VET is increasingly moving towards broader vocational domains and qualifications providing access to higher education at the expense of more specific practical VET**. Partly, the lower VET tracks (EQF 3 and/or ISCED 3a) have become even more practical, as in the case of Hungary, while programmes at higher levels (EQF 4 and/or ISCED3b) have expanded their shares of general education content and become more theoretical as the example of Czechia above illustrates. This points to a possible and risky polarisation at upper-secondary level within VET which exacerbates a key dilemma for vocational education. On the one hand, upgrading may raise the esteem of vocational education; on the other hand, it may dilute VET and also put at a disadvantage those who have their strength in acquiring manual and practical skills and who prefer non-academic learning environments and pedagogies. It may also abet developments which have been observed in the previous decade, such as the turning of vocational schools initially into 'vocational gymnasia', which eventually end up as academic pathways. This provides a pertinent illustration of how different forces can affect the VET pendulum at any one moment and underlines the importance of looking at the history of VET institutions hidden behind numbers and statistical categorisations.

There is **a growing number of mixed systems where work-based tracks exist side-by-side with school-based tracks, pointing towards an ongoing diversification of pathways.** The introduction of apprenticeship tracks in Bulgaria, Romania, Slovakia, Malta, Spain and the Baltic states, as well as changes in Belgium, illustrate the trend towards an increasing role for work-based elements. However, as we were able to show, this increasing workplace learning does not need to happen at the expense of general studies as illustrated by Denmark or Sweden.

In parallel to increasing diversification, approaches to creating 'better structured' education systems (in relation to the interfaces between general and vocational as well as secondary and higher education) have been observed in the previous project with qualifications frameworks playing an important role in this process. Further investigation in this project shows that there are also tendencies in **bringing IVET and CVET closer together**, for instance in Spain, Finland or Lithuania. In Lithuania, vocational labour market training was integrated into IVET and IVET providers were stimulated to create larger institutions to meet regional labour market needs better, but also to become a stronger regional player. In Finland,

adult education institutions and IVET providers have been brought together under one legislative and governing framework, causing mergers in less populated regions. The idea of realising a vision of VET as a lifelong learning system, by improving permeability and creating new pathways between IVET and CVET may be one reason for that, however often the rationale behind is rather (financial) efficiency.