The importance of being vocational
challenges and opportunities
for VET in the next decade

Cedefop and ETF discussion paper
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The importance of being vocational: challenges and opportunities for VET in the next decade

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## Contents

Preamble: higher skilled and motivated workforce needed to rebuild the economy .......................................................... 3

1. The role and benefits of VET ......................................................................................................................... 4

2. VET as an enabler of transitions and recovery ........................................................................................... 6

3. Challenges and tensions in VET and labour markets ............................................................................... 8

4. VET as policy driver for the next decade ..................................................................................................... 10

About Cedefop and the ETF ...................................................................................................................... 17

Annex: Past and future of European cooperation in VET ........................................................................... 18
The debate about the post-2020 European policy framework is taking place at a time of unprecedented challenge. In 2019 the EU economy was already in the midst of a transition period, marked by weak economic dynamic and employment growth losing some momentum. The Covid-19 pandemic has severely disrupted labour markets and promises to bring in its wake a deep, global recession.

As always in times of economic crisis, vocational education and training (VET) can prepare people for the economic transformation that will inevitably accompany the unfolding of the crisis and the following recovery. But, this time, VET is called to play an even more crucial role.

The growing awareness of our exposure to potential shocks is fuelling a deep sense of vulnerability, not only among the younger generations but among all Europeans hit by the crisis. The near- and medium-term outlook is today enveloped in high uncertainty which is affecting consumer and enterprise expectations; this might easily lead to ‘self-fulfilling prophecy’ effects. Investing in VET is the best option we have today to inspire confidence in our citizens: to show them how we trust in the future of our economies and how we value their contribution, whether they are students, workers, professionals, or entrepreneurs.

As we look towards an uncertain future, we cannot forget some game changing opportunities which pre-date the crisis and Europe will continue to face in the near future.

Revolutionary changes in digital technologies, associated with artificial intelligence, robotics and biotechnologies, have the potential to create unprecedented business opportunities, job creation and sustainable economic growth in the EU. The development of these potentials also implies a transformation in the way people work, how work is organised, and, importantly, what, when and how people need to learn. Cooperation and learning from each other has never been as important as it is today. This calls for new, more attractive and accessible learning experiences, suited to all and especially those disengaged from learning and the labour market.

Technology is not the only driver of change. Internationalisation of labour markets and value chains, greening of the economies, and demographic shifts also set VET and skills centre-stage. Human capital development is a strong determinant of how the inherent opportunities are taken and how underlying challenges are addressed.

This paper, jointly prepared by Cedefop and the ETF, aims to inform the next steps in VET policy-making at EU level, including the Osnabruck declaration expected to be discussed by ministers in the autumn of 2020. It puts forward key challenges and opportunities for VET which have emerged from the intelligence, research and evidence collected over the years by the two agencies, each within its own remit and geographic scope.

This discussion paper supports the idea that, in light of the future trends and the changing world of work, the emphasis of VET policy also needs to change. While further developing initial VET (IVET) should remain an essential aim, European policy needs to strengthen the focus on advancing continuing VET (CVET) to meet the economic and societal challenges of the next decade.
The role and benefits of VET (¹)

Despite the narratives of declining participation in VET and the diversity of trends across the EU, IVET remains a key pathway for young people to study at upper secondary level in the EU. According to the latest data available (²), about 50% of young Europeans participate in IVET and obtain a vocational qualification at upper secondary level. While in some countries IVET is under pressure from declining youth cohorts and a growing preference for education pathways that usually lead to higher education, many countries have preserved or even expanded the proportion of young people participating in IVET. But there is more than this.

Departing from fragmented systems linked to a limited range of industries and sectors, especially in crafts and manufacturing, in recent decades new comprehensive IVET systems have been better able to address wider needs, such as those of the service sector, and systemic needs, such as enhancing transparency, permeability, and progression opportunities for further learning. As a result, educational pathways are much less linear and one-directional than in the past. Many people follow general secondary education and then return to VET as part of their further training and continued vocational education and training. While, in most VET systems, either a school-based or an apprenticeship-based IVET model is still dominant, these main models are being supplemented and complemented by alternative forms of learning offering different tracks within one system. This has strengthened the capacity for tailor-made delivery of VET in line with individual and business needs. IVET is also expanding into higher levels, challenging the perception of higher education being exclusively academically oriented. Against this background, the traditional dichotomy IVET versus general secondary education no longer captures the reality of many education and training systems.

In spite of this, almost half of European citizens surveyed by Cedefop in 2016 (³) still perceive IVET as offering few progression opportunities to higher education such as university. Yet most European countries have opened up their VET routes to continue in further education, so that, structurally, there are hardly any dead ends left. It is estimated that almost 70% of VET students are enrolled in upper secondary vocational programmes granting direct access to tertiary education; and one third of 18 to 24 year-olds with a medium level vocational qualification (⁴) are in further education or training (⁵). However, it is also true that use of this non-traditional access route is still relatively low. The insufficient acquisition of key competences in in upper secondary VET programmes, and the limited flexibility of programmes in higher education, tend to hinder permeability between vocational and general pathways.

What does all this mean for IVET learners? Cedefop’s opinion survey on VET clearly shows that European citizens value upper secondary VET as a way to find jobs, strengthen the economy, help reduce unemployment and foster social inclusion. They are right to do so. Labour market prospects are comparatively good for IVET graduates. In 2018, the average employment rate among 20 to 34 year-olds with a medium level vocational qualification was 80.5%, about 23 percentage points higher than their counterparts with a lower level of education; it was also 6.6 percentage points higher than their peers with general qualifications at the same level of education.

¹ EU figures include the UK.
² Cedefop’s calculations based on Eurostat and UOE data collection on formal education.
⁴ Upper secondary or post-secondary non-tertiary level.
tion (6). The same applies to all candidate countries for which data are available (7).

So why do so many EU citizens surveyed by Cedefop still consider IVET a second choice when compared to upper secondary general education? There are several explanations for this paradox, including that IVET graduates are less frequently employed in high-skilled occupations and more often in occupations that require physically demanding tasks. However, one of the main explanations is that the value of IVET crucially depends on the existence of well-functioning CVET systems: in the absence of high quality and inclusive continuing training, the comparative advantages of IVET in terms of labour market outcomes tend to dissipate over time.

Currently, vocational learning plays a growing role in the continuing professional development of adults. Data from the European CVTS (8) show that employer-sponsored training increased significantly – from 66% in 2005 to 73% in 2015 (9) – as differences between large and small enterprises narrowed. However, data also suggest that demand for CVET is still well-below its potential, often largely absorbed by health and safety and other types of mandatory training (10). Cedefop estimates that job-related non-formal training sponsored by employers represents about 80% of total participation of adults in learning, either formal or non-formal. It is, therefore, predominantly the low participation of people not in employment or not supported by their employers that explains why the EU’s modest target of 15% adult participation by 2020 will likely not be met. Similarly, the ETF estimates (11) that, in the candidate countries, employed individuals are more likely to attend CVET programmes. Data show that in the south-eastern Europe and Turkey (SEET) region people living in urban areas are the better-educated and the employed tend to benefit extensively from lifelong learning opportunities.

Uneven participation across different subsets of the population should be a main policy concern. While lifelong learning policies are working comparatively well for the well-educated and those with higher socioeconomic status, they continue to be far less effective in reaching out to the people who are most in need of learning, such as those living in rural or remote areas or low-educated and low-skilled adults more generally.

Developing IVET to meet societal, economic and education challenges remains an important EU policy area. To ensure even higher benefits for participants, however, IVET must be complemented by equally strong CVET systems. CVET, and especially its non-formal component, is the missing piece of lifelong learning systems today in most countries. A stronger focus on developing CVET is essential in the years to come.

(6) All employment figures refer to young people aged 20-34 not in further education or training. See footnote 5.
(7) ETF (2020). Torino process report for SEET region.
(8) Eurostat, Continuing vocational training survey, various years.
(9) Percentage of all surveyed enterprises sponsoring training for their staff.
(10) It is estimated that more than 20% of CVET were devoted to mandatory training, such as that related to health and safety.
VET as an enabler of transitions and recovery

The need for stronger European policy focus on CVET is supported by several factors that have been challenging education and training systems over recent decades but are even more evident and pressing today. While long-term megatrends will continue fundamentally to change the world of work in the coming decade, the economic crisis unleashed by the pandemic will accelerate societal and economic changes and shape the future of Europe’s labour markets.

In the post-Covid-19 landscape Europe will be confronted with both old and new challenges.

(a) The accelerated adoption of emerging technologies and new forms of work organisation, including the expansion of the platform economy, will profoundly transform workplaces, employment relations and labour market dynamics. These transformations will create the need for constant updating and acquisition of new skills and expertise. Demographic shifts will drive the need for more skilling and at the same time require increasing labour force participation. Globalisation is expected to continue to link jobs across borders, affecting not only the types of jobs in demand but also tasks and skill requirements within them. What all these megatrends have in common is that they will fundamentally change the industrial and occupational employment structure of European economies.

(b) Europe is also committed to meeting political challenges. The UN sustainable development goals have been reflected in the European green deal and the new EU growth strategy towards a circular and climate-neutral Europe by 2050. Moving to a sustainable economy will bring both opportunities and challenges, including declining sectors and sectors facing recruitment bottlenecks. While workers in energy-intensive sectors will be directly affected, the effects of carbon-neutral policies will spread across all sectors; new skills and competences will be required in new and changing jobs. At the same time, the strong call for a social Europe with just transitions requires effective implementation of the European Pillar of Social Rights, which aims to ensure everyone has equal opportunities and access to the labour market. Promoting an inclusive and gender-equitable learning society is the keynote of the Union’s social strategy.

(c) Structural trends and policy challenges are now framed within a scenario made more difficult by the impact of unprecedented economic downturn due to the Covid-19 pandemic. In the near future, Europe will see a high number of job losses as a consequence of lockdown measures on enterprises and impoverished families cut back spending. There are still some expectations of a V-shape recovery, with a steep, dramatic decline in the European economy followed by an equally rapid upturn. But there is a clear risk that many job losses might persist even after the pandemic. The ability of public policy to enable the resilience of the EU’s workforce and businesses will make the difference.

The combination of demographic, technological, environmental, political and emerging economic challenges will require a profound transformation towards an economy able to reconcile sustained productivity and adequate distribution of the benefits of growth across social groups and European societies. This will be a tremendous challenge, which translates into a need to support all people in preparing for, and keeping pace with, change.

This calls for a new narrative that no longer addresses VET as a learning pathway under pressure but instead emphasises VET as pivotal for economic, social and environmental sustainability. VET is situated at the crossroads of many skills, education and labour market-related processes. Quality IVET, especially apprenticeships, connects people with the labour market
and performs better in youth employment. But in a fast-changing and uncertain labour market, the consequences of current trends mostly concern those who are already out from IVET and out of the formal education and training system.

What we have learned from previous economic downturns is that the crisis affects everyone but low-skilled adults are by far the most vulnerable. Irrespective of the consequences of the crisis, job displacement due to technological, demographic and other structural changes is happening and will continue to happen even quicker in the near future. Massive upskilling and reskilling the adult population is necessary to make it sure that the new job opportunities created by transformations in the economy will outstrip job displacement. Cedefop research gives an idea of the extraordinary challenge this entails for European societies. Based on indicators that go beyond formal qualifications, Cedefop estimates that almost half of European adults have low or outdated skills (12). This implies a special focus on CVET and effective strategies for upskilling and reskilling of all adults, carefully designed to target the different groups of the population, while taking into account the needs of enterprises and the conditions for their engagement with this ambitious goal.

Similar indications are provided by ETF reports for the SEET region, where a boost in the availability of CVET is also necessary to build effective and countrywide lifelong learning systems. Foreseeable demographic decline, leading to shrinking cohorts of pupils, is an opportunity for existing vocational schools to assume stronger functions and responsibilities in providing upskilling and reskilling services to adults (employees, jobseekers or other categories of learners). At the same time, adults lacking minimum key competences such as those typically acquired in compulsory education, are top priority since they are the most exposed to poverty and exclusion, which can lead to intergenerational transmission of such risks. Review of remedial education programmes, particularly their length, is also advisable as the risk of dropping out is high among (vulnerable) adults. Schools, employment offices and social services have to consolidate their cooperation in addressing the needs of such groups. Innovative approaches such as validation of skills can help customise individual and flexible pathways for successful upskilling routes for adults.

In this perspective, the ambition to provide quality, accessible and inclusive, relevant and financially sustainable lifelong learning systems in Europe is, by far, the main challenge for the years to come.

Challenges and tensions in VET and labour markets

In line with identified trends and challenges, a greater focus on high quality and inclusive CVET should entail:

(a) addressing the whole workforce, including people in employment and the large share of the population currently in the margins or out of the labour market;
(b) shifting learning provision from job-specific technical skills to key competences relevant to work that facilitate labour market transitions and enhance learning and career development;
(c) creating learning pathways with better integration and coordination between CVET, IVET and general education, as well as between formal, non-formal and informal training, for lifelong learning to become an operational reality.

Framing this strategic shift in the European context requires addressing some internal ‘tensions’ that, to different extents, have been affecting VET in most European systems. Two overarching tensions contribute to explain a growing gap between CVET demand and supply.

The first, and most important, can be defined as the fairness dilemma.
EU and national policy agendas emphasise the need for greater labour market integration and social inclusion. This policy objective responds to current socio-demographic challenges and the need to ensure a fair and just transition to a digital and greener economy.

However, participation in CVET, and lifelong learning more broadly, remains too low: Cedefop’s evidence indicates that a large majority of adults in the EU does not even look for learning opportunities. One of the main reasons for this is the low attractiveness of CVET among groups largely under-represented in the labour market. Lack of attractiveness may come from biased perceptions or actual low quality or access to opportunities for training. However, it is also well-known that motivation and attitudes towards VET are influenced by individuals’ social environment, including their family and peers, as well as by their previous learning experiences. The labour markets of the future have little to offer to those who currently engage least in learning; those from poorer backgrounds, vulnerable labour market positions, in old age and with lower educational attainment are particularly at risk of exclusion.

How can this vicious cycle be broken? In a context in which the better educated and skilled show the highest willingness to participate in training, the paradox of public policies supporting CVET through financial measures is that they risk increasing rather than reducing inequality. Similarly, the current debate on VET excellence can support its attractiveness but also brings to the fore the tension between excellence and inclusion and, therefore, the need for better ways and policies to encourage participation of all segments of the population.

(a) One approach is to ensure more opportunities for work-based training as a mode of learning are more attractive and effective for people of all ages, regardless of their starting points.
(b) A second approach is upskilling and reskilling policies, designed and delivered in an integrated manner with other policy-supporting measures, including guidance, validation, financial and social support; these are widely acknowledged to engage people usually hard to reach.

The second important tension can be defined as the market dilemma.

Employers across Europe increasingly claim that they have difficulties in finding the skills they need. Recruitment has its own challenges, requiring time, resources, and investment in the HR function. But one of the implications of today’s rapid technological, demographic and social changes is that the internal benefits of VET,
(the private returns on training), are increasingly understated by workers and employers.

It is usually the individual or the company who identifies a need for CVET but, in a rapidly changing economy and labour market, workers have little incentive to invest in new job-specific skills because they might need, or decide, to leave their current job. Employers also have little incentive because their employees may quickly become redundant or leave in pursuit of better career opportunities. As a consequence, the gap between potential needs and actual demand for continuing training is high today and will increase in the near future.

While well-functioning CVET systems can be an important part of addressing skills gaps, the reality is that integrated and coordinated lifelong learning systems are not in place in most EU countries. This may be attributable to the lack of the necessary public funding and, in turn, to the lack of political recognition of the socioeconomic benefits of continuing learning for society as a whole: increasing social capital and cohesion and the opportunity to enable enterprises to cope with technological changes and react effectively to shocks in the global economy. But the main challenge is to make participation in continuing learning easier, more attractive and effective.

(a) On the one hand, technological innovation and digitalisation have the potential to transform learning fundamentally: personalising programmes/progression opportunities, changing the way learning is delivered, as well as how, where, and when learning can be undertaken, assessed and certified. The potential of workplaces to provide dynamic environments for training and continuous updating of skills and competences is today complemented by the diffusion of asynchronous training, which facilitates learning outside the constraints of time and place.

(b) On the other hand, in a fast-changing and uncertain economy, the development and use of labour market and skills intelligence and strategic foresight is essential to informing VET policy, practice and potential learners as part of a well-defined skills governance framework and infrastructure. It is also important to create direct communication lines and coordination mechanisms (feedback loops) between VET actors and the economy. New or redefined institutional arrangements for empowering VET stakeholders, especially social partners, as well as adequate and targeted financial and non-financial support measures, should form the backbone of every country’s skills and VET governance system.
4. VET as policy driver for the next decade

Drawing on extensive Cedefop and ETF research, policy monitoring and analysis, as well as their experience in supporting policy learning across EU Member States and candidate countries, it is possible to identify several emerging challenges as suggested points for reflection and potential drivers for shaping policy action.

4.1. Promoting CVET as a system in a lifelong perspective

As an essential component of lifelong learning directly oriented towards professional development, CVET is key to addressing economic, technological, social and environmental challenges and making sure that the European workforce does not get ‘lost in transition’.

Concern is not only for those with low qualifications and/or skills, out of the labour market or in other disadvantaged/vulnerable conditions. All adults, employed or jobless and irrespective of their qualification and socioeconomic background, need to have the opportunity to develop, update and upgrade their skills to keep up with rapidly changing work realities and succeed in their personal lives. Similarly, businesses wishing to remain competitive need to be able to satisfy their skills demands and have incentives to invest in training, both at entry level and for the existing workforce.

In spite of the progresses that can be observed in some countries, where falling student numbers have led VET schools to focus on CVET and to broaden their offer to adult learners, the existence of well-functioning CVET systems remains the missing piece of integrated lifelong learning systems in many EU and SEET countries.

There are common reasons for this and several areas for policy action.

4.1.1 Towards CVET systems for all adults

The first issue is that building up CVET systems is a tremendous challenge, both for institutional reasons and because of the larger complexity of organising and governing learning provision for adults.

(a) CVET is usually not under the responsibility of a specific ministry or one level of administration and governance.

(b) The scope and content of CVET is largely related to non-formal and informal learning, which take place using a variety of modes of delivery.

(c) CVET includes a wider range of target groups and is organised for various purposes and organisational contexts.

(d) Policy integration necessary to ensure effective CVET provision involves a higher level of complexity, including industrial policy and relations, labour market and social policy, and education and training, the last of these only marginally related to the formal system.

Building up CVET as a system demands complex institutional arrangements and coordinated policies and practices, including a multi-stakeholder cooperative process ensuring systematic involvement of social partners, representatives of learning providers, individual employers-enterprises, employment services and public authorities at different levels. Their dynamic interaction needs to be driven by a shared and common understanding of priorities and strategies to ensure that policies are aligned and successfully implemented. While CVET is an integral part of broader lifelong learning systems, it must be acknowledged that it requires specific organisation and governance arrangements that cannot be fully achieved through the simple extension of the IVET formal systems.

CVET in most countries is still unstructured, uncoordinated, and uncharted compared to IVET. European and national policies place much
emphasis on the need to raise adult participation in CVET but concrete ways to translate this in practice are still lacking.

If the future European strategy on VET is to take up the challenge of creating, scaling-up and upgrading national CVET systems, the possibility to revive the original idea of a skills guarantee as a main priority in the next decade is worth considering. As a long-term goal, a new skills guarantee should broaden its scope (not only basic skills) for CVET to become the new standard path for all adults, as it is today for young people going to school or obtaining an IVET qualification. To make this new policy challenge credible and feasible, it could also be introduced using a modular and gradual approach, perhaps giving priority to selected target groups supported by initiatives such as individual learning accounts (or similar schemes). This would ensure its implementation is accompanied by complementary measures that may enable under-represented groups to make actual and effective use of resources and training opportunities.

4.1.2 Expansion and diffusion of structured work-based learning in CVET
A second issue is that, by broadening the scope and addressing a more heterogeneous group of people, the content and modes of learning to be promoted in CVET must be also highly diverse. In the long run, the aim is to expand the role of CVET far beyond delivering training. The abilities and attitudes necessary for employees to organise their own work, to manage their professional and career development, to undertake self-learning and learn new things individually and independently, as well as by interacting with others, are rarely acquired through traditional learning arrangements. Work based learning (WBL), in particular structured WBL (13) is expected to play a pivotal role in making CVET attractive and effective and become the ‘linchpin’ of a system that contributes to strengthening economic competitiveness, environmental sustainability, and social cohesion.

WBL, in all its forms, with special attention to apprenticeships, has so far been primarily recognised in relation to IVET systems (14). In contrast, systematic diffusion and expansion of structured WBL in CVET for all still needs to become a clear and shared strategic objective; it must be translated into concrete strategies and actions to engage enterprises on a large scale and provide opportunities not only for people in employment but also the unemployed and those out of the labour market.

Workplaces and enterprises have a key role to play. Systematic diffusion and expansion of structured WBL in CVET requires that enterprises become learning-conducive work environments, that they systematically demand and supply training, act collectively and share responsibility. Offering work-based CVET opportunities should therefore become an integrated part of enterprise work organisation and innovation strategies. But they cannot do this themselves: enterprises, and especially SMEs, will need special support and tailored approaches that fit their particular needs.

Stronger emphasis on structured WBL in CVET for all adults calls for ever stronger relationships among the stakeholders engaged in CVET design and provision. Enterprises should, for example, join forces and collaborate with other enterprises when it comes to WBL demand and provision, to benefit from scope and scale economies. This requires the right incentive to facilitate a shift in enterprises’ behaviour from short-term, individualistic behaviours in favour of a more strategic and long-term vision that acknowledges that the opportunities are higher for

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(13) Structured WBL differs from informal learning while working, as it is planned and outcomes can be measured.

(14) The European framework for quality and effective apprenticeships indicates substantial work-place learning as one of the common agreed quality criteria of apprenticeships that lead to recognised qualifications.
the individual enterprise when operating within healthier and stronger sectors, economies and societies.

So far, in certain countries, tripartite collaboration between employers, trade unions and government has proved effective for people in IVET and in employment; this is partly true also when it comes to some components of CVET directly oriented to employees. The next step is supporting the diffusion of a new CVET systemic approach that, having WBL as the linchpin of the system, dynamically integrates CVET and labour market governance with the overarching goal to turn enterprises into learning-conducive work environments and empower adults and promote their professional and personal development.

To expand the role of WBL for all, innovative types of support, financial and non-financial, to companies and individuals, are needed, as well as learning and professional development opportunities for trainers and mentors.

4.1.3 Coordinating supporting measures to enhance CVET attractiveness

Promoting CVET is a complex multidimensional process which needs synergic approaches and integrated supporting measures, including guidance, validation, financing (15), outreach policies and other supporting measures, including professional development of guidance practitioners, and VET trainers and mentors.

Developing coordinated CVET systems and quality training opportunities for all adults is not sufficient without having a full understanding of how to motivate and attract people to learning. The fast-changing world of work will inevitably increase the potential demand from non-sponsored individuals, not supported by their employers or public incentives. There are, however, many barriers to be overcome to translate this demand in actual participation in training. These barriers are not only confined to the availability of financial resources for individuals and companies but can also relate to other constraints.

Rapidly changing developments in technology and work organisation make it difficult for people to determine the right education and training choice, ensuring success in the medium to long term. Further, navigating through work and learning life may be difficult for adults who need to balance their learning with work and family responsibilities. EU and national strategies and policies increasingly emphasise the importance of capacitation in individual career-development support and flexible financial and non-financial support to learning.

Devising a coordinated set of mechanisms, tools and interventions, and ensuring synergies between the different areas of policy supporting VET, is a challenge left unaddressed in many EU Member States. The development of national action plans, including as a minimum guidance, validation, and financing policies, is necessary to ensure proper coordination between the different measures for supporting individuals and enterprises in the participation/provision of training. The setting up of a comprehensive mapping and monitoring system of policy and measures supporting CVET would be a first concrete step in this direction. This would also help in improving data collection and research on the efficiency and outcomes of policy and measures supporting training.

4.2. Closing the circle: towards ‘age neutral’ VET systems

Well-functioning CVET systems are directly influenced by the way in which IVET is organised. Conceptually, there is no separation between initial and continuing VET; IVET is the foundation on which new knowledge and skills can be built in a lifelong perspective.

(15) Such as individual learning accounts, grants, vouchers, training funds, tax incentives, paid training leave.
From this viewpoint, a first challenge for IVET is how to prepare young people for employment and provide a basis for future learning throughout life. IVET programmes and qualifications should be defined and designed in a way which provides a better balance between key and occupational competences. The changes required in the content and profile of IVET programmes and qualifications challenge the status quo in fundamental ways, including how standards and curricula can be revised and refined, how teaching and training can support these changes, and how the outcomes of learning can be assessed. IVET will need to be more flexible to cater for the needs of individual learners and companies to support work-based learning. Active learning will make pathways more personalised also in IVET, with learners learning more frequently outside classrooms in different contexts, with increasing digital and online learning, to create blended solutions for VET. Yet still needs to be recognised widely to support progression, mobility and career opportunities. Several challenges that can be addressed by working on qualifications, providing more modularised pathways, recognise part qualifications and micro credentials; they make use of the skills intelligence, including tracer studies, and close the feedback loop between labour market demand and IVET system supply.

For lifelong learning to become an operational reality, IVET and CVET provision must be integrated in efficient and flexible ways, supporting individuals when and where they need to progress in education, training and learning. Such an ‘age neutral’ approach would need to give priority to the development of individual learning plans, building on prior learning and validation, creating upskilling pathways by combining recognition of part qualifications with training opportunities, providing guidance and flexible financial incentives.

Policy efforts and cooperation should continue toward a ‘European VET area’ and the implementation of a forward-looking strategy on transparency of qualifications, supporting permeability, and developing progression avenues towards higher qualification levels and hybrid formats. These are all elements necessary to facilitate mobility, promote high quality VET, and to reduce barriers to progression and lifelong learning. The European qualifications framework (EQF) should be the central hub of this strategy, offering a comprehensive map of European qualifications. By ensuring the interoperability of the emerging national qualification databases, and by connecting them to the new Europass, it will be possible to establish the basis for a tool directly supporting individual learners, employers and qualification authorities.

4.3 Towards skills intelligence 2.0 to address changing VET and skills demands

As part of VET governance systems, in IVET and CVET, promoting the development of a new generation of labour market and skills intelligence is key to ensuring VET responsiveness to current and future challenges resulting from demographic shifts, digitalisation, the greening of the economy, migration and geographic mobility.

Skills intelligence is complex and goes beyond devising mechanisms for increasing the supply side through formal education and training. The institutional context, which influences available labour supply and demand, needs to be considered along with the matching of skills. Addressing such complexity is essential to understand better how VET systems work and to explore their links with other important socio-economic phenomena in the functioning of the labour market. In this perspective, innovative
policies to encourage and facilitate this process should focus on two main priorities.

First is developing a new generation of labour market and skills intelligence (LMSI).

Big data based on job advertisements, CVs, patents and scientific papers, learning opportunities on the internet, and the use of artificial intelligence (AI) can produce meaningful and actionable intelligence when combined with traditional data sources. The capacity to produce and disseminate faster, more detailed and fit-for-purpose LMSI is a key element in increasing insight into what is happening in the world of work and the VET-to-work transition. It helps VET stakeholders strengthen feedback loops between education and training and the labour market and supports learners in making better education, training and career choices. Providing platforms and tools to policy-makers, social partners, VET providers, guidance practitioners, and teachers and trainers can be a valuable starting point.

Second is enhancing the role of skills intelligence within VET governance structures to bridge the worlds of VET and work.

A key challenge in ensuring the relevance of VET is using skills intelligence to shape programmes and inform practice. Introducing or reinforcing governance arrangements which incentivise effective collaboration between all key players and involve regional and sectoral stakeholders can set the stage for a more strategic approach to VET and skills development, spanning a range of different policy domains. This can aid the development of strategic skills foresight approaches necessary to complement data analysis in mapping and preparing for different futures. More inclusive and effective governance arrangements also contribute to strengthening feedback loops between VET and the labour market, making it easier to develop intelligence that better links demand and supply side trends.

4.4 Internationalisation in VET

Global trends and internationalisation of labour markets create common challenges for skills development in all countries. Despite differences in the design and functioning of VET systems around the world, countries seek opportunities for exchange and cooperation at international level. Internationalisation of VET is not uniform and is not easy but can be a powerful driver for change and for making VET more attractive and robust.

First, internationalisation of VET is about the extent to which national systems are influenced by global needs and requirements, for example through the influence of international standards and certificates. National VET systems cannot operate in isolation from international labour markets and technology developments, implying that national standards and programmes must be continuously adapted and adjusted to external requirements and needs. The balancing of international requirements with national needs and priorities raises important questions regarding the continuous review and renewal of national VET systems. Increasingly we see a debate on whether countries can agree on shared standards for VET, potentially increasing quality and relevance of VET qualifications.

Second, internationalisation is about mutual learning and how countries can share knowledge to improve own practices. There are mutual benefits from international cooperation for VET systems at policy-making level, providers and teachers and learners level. Cooperation often takes the form of agreements between systems for the provision of aid, convergence of system process and outcomes; this draws on instruments and modalities like peer learning, policy dialogues, platforms of knowledge, projects and mobility schemes. This cooperation increasingly includes engagement through partnerships between VET providers, schools, businesses, ex-
xperts, participation in international competitions, and sharing of data and experiences.

Internationalisation can also refer to the setting of common objectives and agreement on shared instruments and strategies. The latter is exemplified by European cooperation in VET but also by efforts across the globe to put in place regional qualifications frameworks supporting transparency and reform. Treaty Article 166.3 is the legal basis for the EU to develop cooperation in VET with third countries and international organisations. The EU acknowledges the increasing trend of internationalisation in VET and has dedicated more resources over the years to strengthen its position as a global actor. VET and human capital development as policy domains have become an integral component of the external policies of the EU and cooperation is now based on a two-direction flow of information, experiences and expertise where the benefits are visible for all partners.

As internationalisation increases in importance, there is an increasing need for cooperation and coordination between relevant institutions and stakeholders. Apart from national or regional authorities, international organisations, bilateral donors and cooperation agencies are also engaged. A useful cooperation platform is the IAG (inter-agency group) in TVET chaired by UNESCO. The need for reporting, monitoring and analysis of data is an important basis for cooperation at international level. There is a wealth of data nowadays: better cooperation in sharing such data will lead to better focused actions on the ground. At the same time, internationalisation must go beyond data gathering and comparisons as there is reporting fatigue in many third countries due to the growing fragmentation of donors’ efforts. Better coordination among authorities and organisations that are involved can help.
Key take-away points

- The debate about the post-2020 European policy framework on vocational education and training VET is taking place at a time of unprecedented challenge due to the Covid-19 pandemic. As always in times of economic crisis, VET can prepare people for the accompanying transformation of the economy and the following recovery. Investing in VET is today also the best option to inspire confidence in European citizens.

- Irrespective of the consequences of the crisis, job displacement due to technological and other structural changes is happening and will continue to happen at an even faster speed. Not only are labour market transitions becoming increasingly frequent and career paths less linear, but also work content and its organisation are changing. As a result, people and employers need increasingly complex combinations of interpersonal, entrepreneurial and career management skills.

- Europe is also committed to meeting some important political challenges, including the greening of the economy and delivering new and more effective rights for all citizens; there is a positive association between skills development, innovation, productivity, employability and job satisfaction. At the same time, redirecting the economy towards human-capital intensive economic activities facilitates green and employment-rich growth.

- In this rapidly changing environment, almost half of the entire adult population in the EU and the SEET region is in potential need of upskilling or reskilling. While further developing initial VET (IVET) should remain an essential aim, European policy needs to strengthen continuing VET (CVET) to ensure that the new job opportunities created by the transformations of the economy will outstrip job displacement.

- All adults, employed or jobless and irrespective of their qualification and socioeconomic background need to have the opportunity to develop their skills to keep up with rapidly changing work realities and succeed in their personal lives. Similarly, to remain competitive businesses need to be able to satisfy their skills demands and have incentives to invest in training both at entry level and for the existing workforce.

- While CVET is an integral part of broader lifelong learning systems, it must be acknowledged that it requires specific organisation and governance arrangements that cannot be fully achieved through the simple extension of the formal IVET systems. As a long-term goal, a European skills guarantee could be introduced in which CVET becomes the new standard path for all adults, and which is supported by initiatives such as individual learning accounts.

- Advancing towards CVET as a system also implies expanding its role far beyond delivering training. The expansion of work-based learning (WBL) is central to making CVET more effective and increasing participation. Systematic diffusion of structured WBL in CVET requires engaging workplaces and enterprises on a large scale, helping them to become learning-conducive work environments that systematically demand and supply training.

- Supporting CVET is also about helping people and enterprises to be aware of their needs, to be informed of the learning opportunities available, and to be more willing to invest in learning. Ensuring synergies between the different areas of policy supporting CVET will imply integrating financial incentives, guidance, validation, outreach policies and professional development of VET trainers and mentors.

- Well-functioning CVET systems are directly influenced by the way in which IVET is organised, providing the foundation on which the former can build new knowledge and skills in a lifelong perspective. Policy efforts and cooperation should continue toward a European VET area; this requires a forward-looking strategy on transparency of qualifications, support to permeability, and developing progression avenues towards higher qualification levels.

- As part of VET governance systems, the development of a new generation of labour market and skills intelligence (LMSI) is central to ensuring the relevance and responsiveness of VET by shaping actual programmes and informing practice. Big data, based on job advertisements, CVs, patents and scientific papers, learning opportunities on the internet, and the use of artificial intelligence (AI) can produce meaningful and actionable intelligence when combined with traditional data sources.

- Introducing or reinforcing skills governance arrangements which incentivise effective collaboration between all key players can set the stage for a more strategic approach to VET and skills development, and contribute to strengthening feedback loops between VET and the labour market.

- European VET systems are influenced by the increasing internationalisation of labour markets which creates common challenges for skills development in all countries. Despite differences in the design and functioning of VET systems around the world, national VET standards, programmes and certificates must be continuously adapted and adjusted to account for external requirements and needs.

- Internalisation in VET is also an opportunity for cooperation at policy-making level as well among VET institutions. A more systematic approach should support knowledge sharing and improve mutual learning across countries for VET and human capital development to become an integral component of the external policies of the EU.
CEDEFOP: European Centre for the Development of Vocational Training

Cedefop is the EU’s reference centre for vocational education and training (VET), skills and qualifications. Based in Thessaloniki, Cedefop supports the promotion, development and implementation of relevant Union policy by working with the European Commission, EU Member States and social partners. Cedefop provides evidence, monitors and analyses policies and shares knowledge in three strategic areas:
- shaping VET systems to ensure their relevance and responsiveness to rapidly changing policy priorities;
- valuing VET policy by supporting learning and helping people gain and update the skills they need to succeed in the labour market and in life;
- informing on VET and skills policies for building a qualified workforce ready for the changing future of work.

ETF: European Training Foundation

The ETF supports the EU as a global actor in the field of human capital development, including VET. Established in 1994 in Turin, the ETF supports transition and developing countries – with a primary focus on the EU pre-accession and neighbourhood regions and Central Asia – to reform their education, training systems. It also supports the EU to maximise the impact of its assistance to these countries. The ETF 2027 strategy is built around three pillars:
- monitoring developments and assessing country needs for the modernisation of their education and training systems;
- providing policy advice to its partner countries and EU institutions;
- acting as a global knowledge hub on human capital development in developing and transition countries.
Annex

Past and future of European cooperation in VET

The Copenhagen process, the intergovernmental process launched in 2002 to develop lifelong learning and promote mutual trust between key players in VET, was founded on the need to reduce barriers to the mobility and progression of learners, to improve VET quality and attractiveness, and to raise parity of esteem with other fields of education. The systemic approach to VET reforms at European level has reinforced European cooperation, supported progress towards common objectives across the EU and helped address common challenges. The ‘deliverables’ introduced in the Bruges communiqué (2010) and the Riga conclusions (2015) have made common ambitions and priorities for VET more concrete and actionable.

Cedefop and ETF monitoring shows that cooperation within the Copenhagen process has become a catalyst for modernising VET in many EU Member States, EEA and candidate countries. While they remain diverse in terms of institutional set-up and delivery, after nearly two decades of policy cooperation, European VET systems have grown closer together and have changed in directions that benefit learners, economies and societies. The increasing focus on apprenticeships and other forms of work-based learning and increasing attention to widening access to VET and qualifications are hallmarks of progress made.

The remarkable improvements predominantly relate to changes and reforms in formal VET systems. In many countries, some policies and initiatives affecting VET are part of broader policies and measures that cover more than one sector of education and training systems. Among others, the areas addressed in an integrated way are key competences, teacher entry requirements and professional development, quality assurance arrangements, graduate tracking, and guidance. This especially relates to general and vocational education and training programmes at upper secondary level.

A new strategy for the future development of initial and continuing VET needs to acknowledge and build on these achievements but, at the same time, also reflect the crucial implication of the profound challenges that lie ahead: a radical strengthening of learning opportunities for adults based on more efficient interaction between initial and continuing VET.

For lifelong and life-wide learning to become a reality, individuals need to be able to accumulate learning experiences across institutions, sectors and countries. Borderlines between VET for youths and adults, initial and continuing training are increasingly becoming less clear-cut. This underlines the need for greater flexibility and permeability between learning pathways and a variety of learning settings. It also entails reflection on how IVET and CVET are connected in the lifelong learning perspective to support learning and occupational careers. Effective interaction between different education and training institutions, labour market actors and stakeholders will be crucial. In this sense the initial objectives of the Copenhagen process to facilitate mobility of learners through increased transparency remains an important objective supporting the rolling out of the ‘age-neutral’ VET needed in the 21st century.

In the coming decade more attention needs to be given to CVET, not only because of macro-trends like demography, technology and the green economy but also for several transformations and opportunities brought about by new technologies for labour market and learning provision. This includes the platform economy and more generally intensified cross-country labour mobility, both digital and virtual, digital learning and the development of learning platforms and online resources that can benefit citizens across country boarders, and micro credentials that certify skills that people develop for their work.
Riga process and future of European cooperation in VET

Cedefop and the ETF have monitored and analysed what EU countries (Member States plus Iceland and Norway) and candidate countries have done in 2015-19 to address the five medium term deliverables (MTDs) for VET agreed in Riga in 2015. Taking stock of progress, analysing what has worked and what needs to be improved is an important piece of evidence to help shape the way forward for the new cycle of EU cooperation in VET and related priorities for the post-2020 period. A joint forthcoming report on the achievements flags common trends across countries. Key conclusions are presented below.

MTD1: Promote work-based learning (WBL) in all its forms, with special attention to apprenticeships

Promoting apprenticeships had already been high on the European policy agenda since the 2008 economic downturn. The alternation of learning in schools and enterprises was then recognised as a possible way to ease young people's transition to the labour market, given that countries with well-functioning apprenticeships have lower youth unemployment rates. Considered a top priority in EU Member States, EEA and candidate countries, in 2015-19 apprenticeship and other forms of work-based learning expanded and became central to several EU-level initiatives. The establishment of the European alliance for apprenticeship (EAfA) in 2013 drew increased attention to apprenticeships.

The majority of MTD1-related actions in the reporting period focused on apprenticeships, dual systems and alternance (ADA) schemes. Most countries introduced system level reforms such as setting up or updating their legal frameworks, updating and clarifying rules and regulations or expanding apprenticeship to new programmes at higher levels. Some countries worked to clarify the roles and responsibilities of different actors, especially employer organisations and chambers. This area will be on national agendas for the years to come. Many countries focused on making apprenticeships more attractive for employers and learners. Incentives (mostly subsidies or tax exemptions) are increasingly used to encourage enterprises to offer training places. Some countries have started designing non-financial incentives, such as developing 'labels' and certificates to signal quality training offers for companies that provide apprenticeships.

School-business cooperation was reinforced through increased participation of labour market stakeholders in shaping VET. Reported developments related to a growing range of enterprises, sharing responsibilities and strengthening partnerships in programme design and teaching. Despite these efforts, this area requires more attention and further exchange through peer learning to improve, for instance, the distribution and coordination of learning that happens at school with learning at the workplace. In addition, more efforts are needed to boost the involvement of SMEs in work-based learning and apprenticeships with measures such as direct support to SMEs with apprenticeship support services and intercompany resource pooling.

MTD2: develop quality assurance mechanisms in VET and continuous information and feedback loops

By 2019, all countries had developed a national approach to quality assurance (QA). Many countries worked on revising their regulatory frameworks, either as part of wider VET reform or by consolidating fragmented approaches. Many emphasised ensuring the quality of VET providers and focused on promoting self-assessment in (mostly IVET) schools to introduce a culture of continuous improvement. Developing external evaluation, introducing quality observatories and making quality agreements with VET providers systematic was equally common. In most cases,
self-assessment and external evaluation work hand-in-hand and support putting in practice the quality cycle, an important element of the EQA-VET recommendation. Quality assurance initiatives seldom relate to developing methodologies for qualification design and review or to NQF-related developments. Only a few countries reported introducing outcome-based approaches, focusing mostly on certification and examination processes. Similarly, strengthening quality assurance of work-based learning and apprenticeships still appears relatively uncommon.

Almost half of the initiatives developing information and feedback loops to improve the quality and relevance of VET focused on anticipating training needs, while about one third of the countries started developing comprehensive forecasting mechanisms. Some of the approaches to identifying future labour market and skill needs combine available statistical data with qualitative information on technological trends and societal changes. Some countries have less comprehensive approaches to informing the provision of VET programmes, such as research projects or qualitative surveys.

But setting up mechanisms to assess, anticipate and respond to skill needs is not enough. To be able to translate labour market intelligence into effective policies requires collaboration and interaction between different stakeholders. While countries have devoted some attention to setting up standing advisory bodies to inform policy-making, there is often a need to involve teachers, learners, and employee representatives more. To keep VET relevant to regional and local needs, there is a need for local and regional autonomy in programme development and closer cooperation between providers and employers. Many of the reported developments are dependent on EU funding, which raises important issues in terms of the sustainability of these approaches.

The most important developments in the use of information on transition and employability of VET graduates relate to setting up graduate tracking systems. However, information on outcomes is not always collected systematically. Information related to placements of VET graduates and the utilisation of their skills in the workplace continues to be the least used. Data protection regulations, the cost of collecting such data and the capacity needed at system level to interpret and use these data to inform VET are common bottlenecks.

**MTD3: access to VET and qualifications for all**

MTD3 is most multidimensional. It links with MTD1 and MTD4 as well as employment and social policies, not least through its strong inclusion dimension. MTD3 has been reinforced by the 2016 recommendation on upskilling pathways and the European pillar of social rights; many policy actions reported by countries contribute to their objectives but have not been devised specifically in response to them. Actions in the reporting period mainly addressed training, reskilling and upskilling vulnerable groups; increasing permeability and flexibility; improving guidance; recognition-validation; transparency of qualifications (NQFs, ECVET); and promoting equal opportunities for all.

To ensure access to VET for all, countries increasingly focused on the needs of vulnerable groups for up/reskilling; early school leavers and NEETs, low-skilled, unemployed, employed people at risk of becoming jobless, parents on (or after) a parental leave, youths from disadvantaged urban areas, young people with learning difficulties, people with disabilities, senior workers, refugees and other migrants. Efforts were closely dependent on the development of guidance and validation arrangements and efficient combination with social support measures, making it possible for learners to progress on the basis of prior learning and experiences.
Since 2015, efforts have been made to increase the quality of, and free access to, career guidance to learners and through online platforms. But it remains a challenge to cease perceiving guidance as an ad-hoc service, offered only to the unemployed or only school-based, and instead to embed it into the lifelong learning process.

Countries have reinforced their work on validating non-formal and informal learning. The youth guarantee, the Council recommendation on upskilling pathways, and measures for the long-term unemployed have embraced (elements of) the validation process and targeted validation activities to these groups. Progress has been made in using validation for low-qualified and low-skilled jobseekers. The inflow of migrants in recent years has contributed to using validation more widely. However, it is important that countries adopt comprehensive approaches linking skills assessment and tailored training to validation and recognition of skills supported by guidance and counselling at any transition points from education to work and within both.

Permeability and flexibility were seen as important in allowing learners smooth progression in education and training systems without dead ends. For this reason, learning outcomes-based transparency tools like the EQF and associated national qualification frameworks provide an overview of existing qualifications and how they are linked together. The coverage of NQFs has been growing in recent years and their comprehensive character is becoming stronger. The impact of the NQFs is growing, particularly in the review and renewal of qualifications standards and in promoting stakeholder involvement. These tools are also essential to cross-border mobility, a key objective of European cooperation.

In the western Balkans and Turkey, the ETF notes positive progress in the design and implementation of qualification systems through introduction of NQFs. Policies on qualifications in these countries are oriented towards life-long learning, quality and inclusion. The work needed for full implementation of the newly established qualifications systems will continue: qualifications registers have to be filled with quality-assured qualifications, quality assurance standards and mechanisms still have to be consolidated and harmonised across different sub-systems of education and training.

**MTD4: strengthen key competences**

Actions in MTD4 have focused on digital competences, STEM competences, country and foreign languages and entrepreneurship. Policy developments related to learning to learn, social and civic competences and cultural awareness and expression competences received less attention. It is not rare to observe national policies addressing key competences as a package. These are broad policies covering several key competences and consequently they often limit their aims to raising awareness and setting a vision, rather than embedding them into the system. Many countries also have their own definitions for key competences, although often similar or derived from the EU definition.

Most reported developments on key competences address initial VET. Policies have mainly aimed at supporting key competence development by setting up strategies and action plans, revising programmes and curricula, improving methods for assessment, and training teachers and trainers on learning key competences. EU or international initiatives (such as CEFR, DigComp) have affected national policies promoting key competences.

Project-based initiatives are often used to strengthen digital competences. This does not mean that they replace ‘standard’ actions aiming to update/create new curricula/standards that are still mainstream across Europe. There is an increase in inter-ministerial/inter-departmental
cooperation in addressing digital competences in VET, as well as establishing dedicated authorities for digital affairs. Evidence also shows an increased involvement of companies and other stakeholders in the reported developments. Policies aiming to improve teacher and trainer competences are often remedy actions for those that need to upgrade their digital competences to be able efficiently to teach any subject (not only ICT). However, what was rarely reported by countries is initial teacher training and how it addresses digital competences. Little attention is paid to reducing digital barriers for people with special needs and senior citizens. Despite many policy developments in CVET, few specifically address this challenge.

Despite the progress countries have made, efforts should continue to address this policy area. The need for digital competences and entrepreneurship is rising since they are crucial to flexible learning approaches, to promoting creativity and innovation and to supporting other key competences, such as literacy, science, technology, engineering and mathematics. The need for further work on personal, social, learning to learn, citizenship and cultural awareness and expression competences also came as a strong message from Cedefop’s recent workshop on key competences and is also partly corroborated by Cedefop’s opinion survey data.

MTD5: initial and continuous professional development of VET teachers, trainers and mentors
Redefining VET teachers’ entry requirements and updating pre-service and initial in-service training is mostly targeted at addressing the insufficient preparedness of teachers with respect to the challenges they face. Some countries in the reporting period looked for ways to address teacher shortages and make teaching more attractive by increasing salaries, developing career opportunities and attracting professionals from industry. Despite the work done in this respect further attention is required to this area in the future.

With regard to teacher continuous professional development, most countries introduced programmes and courses, built career development opportunities and promoted work placements in companies to keep teachers updated on industry, labour market and technological developments. A limited number of countries have introduced specialised programmes to prepare VET school leaders for their role, which often includes taking decisions about teacher professional development. Taking into account the volume of initiatives reported for teacher and leader CPD, countries will need to consider monitoring its content, quality and effectiveness for better learning.

With the development of apprenticeships and work-based learning in most of the countries there is a growing need for more employees from companies who can act as trainers/mentors. Few developments focusing on their training were reported. Examples include (re)defining the requirements to become a trainer, introducing/updating training programmes and opening up learning opportunities through school visit schemes. Most of the initiatives that address professional development for teachers and in-company trainers are carried out through EU-funded projects. It is important that successful practices derived from these programmes are mainstreamed to form systematic and holistic policies for VET staff professional development.