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COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

on a European Strategy for Vocational Education and Training 2026-2030

A European Strategy for Vocational Education and Training 2026-2030

1. Why Europe needs to act

1.1 Challenges for Vocational Education and Training (VET)

Europe's competitiveness, resilience and social and territorial cohesion depend on a skilled workforce. Major transitions, from digitalisation, artificial intelligence (AI), and decarbonisation to demographic change and the need to strengthen Europe's security and defence, are reshaping production value chains, services and occupations, and with them the skills people need throughout their lives, at work and in society. These transformations create new opportunities but they also intensify the labour and skills shortages that already hold back investment, productivity and growth. For VET, this means a twofold challenge: ensuring high-quality and inclusive provision of education and training while adapting provision quickly enough to keep pace with changing technologies, occupations and labour-market and societal needs.

A large part of Europe's economy depends on people with vocational qualifications. Yet many vocational occupations are already facing shortages. VET-intensive occupations[1] account for close to 60% of EU employment. More than 10 million learners participate in initial VET across the Union, and 52.7% of learners at medium level[2] were enrolled in vocational programmes in 2024. Almost 70% of the occupations with the highest shortage scores are VET-intensive[3]. Shortages weigh most heavily on SMEs, 80% of them reporting difficulties in finding qualified workers.

The dependence on VET professionals – people with vocational qualifications - is particularly strong in sectors central to Europe's competitiveness, resilience and essential services. As key industries transition to more sustainable practices, demand for technical expertise is rising faster than supply. Resulting shortages in green skills are becoming a major obstacle in sectors such as energy, construction, and transport, making it harder for the EU to meet its climate and environmental goals. To reduce fossil fuels dependence, expanding electricity grids and clean homegrown energy capacity requires electricians, technicians and construction professionals. For example, the workforce in the energy sector is projected to increase by 50% by 2030[4], while the EU needs 500 000 skilled workers in relation to its ambition on heat pumps, a key renewable electrification technology in the building and industry sectors[5]. The overall demand in the building construction sector to produce residential dwellings and affordable housing could require 3.6 million additional employees by 2030.[6] Industrial and defence capacity relies on mechanics, machine operators, welders and engineering technicians, while transport, water infrastructure, healthcare, care services and civil protection all depend heavily on a wide range of vocational professionals. The agricultural sector too depends significantly on skilled professionals, however over 70% of the farm mangers in the EU only have practical experience, and only one in ten has full agricultural training. VET skills development also supports wider EU policy priorities, for example, those related to preparedness, resilience and crisis response.

[1] VET-intensive occupations can be defined as those professions in which the required skills and competences are typically acquired through initial or continuing vocational education and training pathways (IVET or CVET), rather than through general or purely academic education. In view of data constraints, which require the focus to be limited to upper secondary qualifications, VET-intensive occupations are identified by a prevalence of workers holding medium-level vocational qualifications as their highest level of attainment.
[2] ISCED levels 3 and 4, source: Eurostat educ_uoe dataset.
[3] European Centre for the Development of Vocational Training (Cedefop) analysis.
[4] Union of Skills
[5] IEA World Energy Employment 2025
[6] According to the European Construction Observatory, the construction sector is among those with most acute shortages – see EU construction skills: gaps, trends and what comes next | BUILD UP

Shortages are further exacerbated by persistent gender imbalances across VET fields: women are underrepresented in engineering trades, transport, ICT and farming, while men are strongly underrepresented in health and welfare, which means that the pool of available talent is further restricted. Women account for only 15.9% of VET learners enrolled in STEM in 2024, against a 2030 EU objective of at least 20%.

Demographic change substantially increases this pressure. The recent 2026 report "Demographic transformation in the EU: understanding change and adapting to its consequences" highlights how investments in education, training and adult learning can boost productivity and innovation, potentially offsetting the impact of lower birth rates on the workforce. Around nine out of ten job openings in VET-intensive occupations up to 2035 are expected to result from the need to replace workers leaving their jobs rather than from employment growth. Competition between sectors will therefore intensify. Replacement needs in VET-intensive occupations are estimated at around 3.6 million workers per year in the EU between 2026 and 2035, accounting for around 64% of total replacement needs in the EU economy.[7] At the same time, almost a fifth of the EU working-age population is outside the labour market, while almost 8 million people aged 15-29 are not in employment, education or training (NEETs). In disadvantaged regions, shortage of VET professionals could have a negative knock-on effect on the provision of essential services, quality employment and entrepreneurship opportunities and the competitiveness of local areas. This effect results in a diminished attractiveness of regions as places to live, work and thrive.

Given the scale and pace of change, the capacity of VET systems to provide high-quality and up-to-date skills is therefore critical. The situation differs substantially between and within Member States, but several common challenges remain. Skills intelligence does not systematically translate into revised curricula and training offers. Cooperation between public authorities, social partners, businesses and VET providers remains uneven. Almost half of social partners report little or no influence over initial VET curricula. Shortages of qualified teachers and trainers, differences in the quality of apprenticeships and other forms of work-based learning and insufficient access to modern equipment and technologies can further limit the quality and responsiveness of VET. Only 36.5% of medium-level VET learners were enrolled in STEM programmes in 2024, against an EU-level target of at least 45% by 2030. Only 18% of VET teachers consider that their profession is valued. Companies, notably SMEs, receive insufficient support to prepare in-company trainers. Participation in continuing VET also remains insufficient and uneven despite the growing need for workers to upskill and reskill.

The challenge is not only to train enough vocational professionals but first and foremost to train them well. Technological change, including AI and automation, is changing the content of jobs and the mix of skills required, as digital, cognitive, and communication tasks become increasingly important alongside occupational expertise. Strong basic skills – literacy, mathematics, science, digital and citizenship skills – and transversal competences are essential for learners and workers to acquire new occupational skills, use emerging technologies and adapt as tasks and working environments evolve. An analysis of PISA 2025 data on VET learners covering 14 EU Member States, for which comparable data on upper-secondary VET are available, highlights relatively weak levels of basic skills in mathematics, reading and science, with performance declining compared with 2022 and remaining below that of learners in general secondary education. As PISA assesses learners at the age of 15, these findings largely reflect skills acquired before entering VET programmes, highlighting that many learners already start their vocational pathways with relatively weak basic skills. The OECD Survey of Adult Skills (PIAAC) reveals that these challenges extend well into adulthood, with around one in five adults in the EU having low proficiency in both literacy and numeracy.

These challenges also affect the attractiveness of VET, although the underlying picture is more complex. VET has considerable strengths on which to build. Vocational pathways at medium level are

[7] Cedefop analysis

associated with strong labour market outcomes: in 2025, the employment rate of recent medium-level VET graduates reached 80.2%, compared with 66.8% for recent graduates from general education who do not continue their studies at tertiary level. However, outcomes vary considerably between Member States, with employment rates of recent VET graduates ranging from 91.5% in Germany and 89.0% in Denmark to 58.0% in Greece and 63.4% in Romania.[8] The Eurobarometer on VET attractiveness published in July 2026 shows that a majority of respondents regard VET as offering high-quality learning and good job opportunities. Half of EU citizens (50%) would recommend VET to a young person and 67% of Europeans believe that VET enables progression to higher education.

Europeans value VET, but they do not necessarily choose it. VET does not yet enjoy parity of esteem with general education, for several reasons. According to the same Eurobarometer, 75% consider that general education at upper-secondary level has a more positive image than initial VET in their country. Three in ten Europeans (30%) also believe that young people about to choose their upper secondary education do not receive enough information on VET opportunities. Familiarity with VET makes a clear difference: those who have themselves attended VET are more likely to recommend vocational upper-secondary education (59% compared with 42%) and to view its learning quality, teachers and infrastructure positively, while positive perceptions of VET are almost twice as widespread among those who consider that enough information is available (81% compared with 42%). Improving quality is therefore necessary but not sufficient: the strengths of VET also need to be made more visible. Low attractiveness also has consequences beyond reputation as it reinforces shortages by making it more difficult to attract learners into occupations and sectors where demand is highest.

Lack of access to high-quality career guidance makes it more difficult for young people and adults to make informed learning and career choices throughout working life. In addition, relatively high drop-out rates in VET can lead to labour-market exclusion at a substantial economic cost. For instance, each NEET is estimated to cost around EUR 14,600 a year in foregone output and public transfers, close to EUR 100 billion (0.62% of GDP) across the EU.[9] Challenges in understanding and recognising qualifications and skills form an obstacle to labour mobility and contribute to shortages and mismatches. The recent proposals under the Skills Portability initiative aim to address these barriers.

Perception and practice also diverge when it comes to international opportunities. According to the Eurobarometer on VET attractiveness, 64% of Europeans believe that VET learners have opportunities to study abroad as part of their studies. Yet only an estimated 5.3% of VET learners benefited from learning mobility abroad in 2023, far below the 12% target set for 2030. Learning mobility can contribute to the development of occupational, basic and transversal skills, highly valued by employers. Demand for EU funding support under the Erasmus+ programme exceeds available budget, while providers, employers and learners continue to face barriers in organising and accessing high-quality VET mobility.

1.2. Future demand for vocational skills

The demand for vocational skills is expected to remain strong in the next ten years, but it will evolve as Europe's economy and investment priorities change.[10] Projections to 2035 indicate that VET-intensive occupations will remain the largest part of the European workforce. Employment in these occupations is projected to remain broadly stable, increasing slightly from 131.2 million workers in 2023 to 131.6 million by 2035. At the same time, more specialised technical occupations are gaining importance while some routine occupations (e.g. retail, administrative and support services) are expected to decline.

[8] Eurostat. (2025), Employment rates of young persons not in education and training by educational attainment level and years since completion of highest level of education [edat_lfse_24]. Recent medium-level VET

[9] European Commission (2025), Employment and Social Developments in Europe 2025, Box 2.2 (Eurofound estimates for 2023, age 20–29)

[10] Cedefop Skills Forecast (2026)

AI and automation are accelerating these changes. They can simultaneously raise productivity, create demand for new technical skills, and reduce labour demand for other skills. Recent vacancy data already point to a changing pattern of labour demand: since the advent of generative AI tools in late 2022, occupations relying on physical presence, manual expertise and applied technical skills – including engineering technicians, machinery mechanics, construction trades and transport workers – have increased their share of vacancies[11]. This recovery of VET-related vacancies coincides with the widespread use of generative AI tools, showing increased demand for certain VET-related occupations in recent years.

In addition, there is concrete evidence that AI adoption is accelerating in several VET-intensive sectors, although its effects remain uneven. In manufacturing, the share of enterprises using AI increased from 6.8% in 2023 to 17.3% in 2025[12]. In construction, AI use more than tripled from 3.2% to 10.8%[13] over the same period, with applications including site monitoring, hazard detection and quality control, but renovation and affordable housing needs will nonetheless sustain strong demand for construction skills. Also, AI represents an important potential for innovative off-site construction and renovation products and methods.[14] Healthcare increasingly integrates AI[15], increasing the need for digital and AI-related competences among healthcare workers, including vocationally trained staff. Together, these developments suggest that AI may not simply determine the creation or loss of certain occupations, but increasingly change the tasks and skills required within existing vocational profiles.

These technological effects interact with Europe's investment choices. Additional investment in three areas central to Europe's competitiveness and strategic resilience – digitalisation and AI, decarbonisation, and defence - will reinforce the shift in demand towards industrial, technical and technology-intensive activities. Digitalisation and AI investment particularly support electronics, computer-related activities, data and digital infrastructure while at the same time accelerating automation and changing skill requirements within these and other sectors. Investment linked to decarbonisation particularly increases activity in electrical equipment, electronics, machinery and motor vehicles. Higher defence investment also supports manufacturing, notably machinery and equipment, motor vehicles and other transport equipment.

Under a scenario combining these investment drivers, the strongest positive contributions to VET-intensive employment are projected in manual and technical occupations, stationary plant and machine operators and metal, machinery and related trades workers, suggesting a strengthened role for advanced manufacturing and automation-enabled production. Employment demand also increases notably for science and engineering associate professionals, pointing to rising needs for mid-level technical and applied STEM skills. Several craft and manual occupations – such as food processing, woodworking and other craft trades, assemblers, and labourers in mining, construction, manufacturing and transport – also record an increased demand. This indicates that, alongside high-skill technical roles, this scenario generates employment opportunities throughout the broader value chain. More modest but still positive employment gains are observed for electrical and electronic trades workers and information and communications technicians. In this scenario, sectoral expansion mitigates part of the job losses generated linked to automation.[16]

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[11] Cedefop (2026), *Reverse gear: how AI is bringing vocational occupations back*. Between 2019 and mid-2022, the share of EU online vacancies in VET-related occupations had been declining steadily, from over 36% to below 33%. Since late 2022, however, the trend has reversed. The VET share of vacancies has recovered gradually, returning to over36% by early 2025.

[12] Eurostat (2026), *The use of artificial intelligence (AI) technologies in the European Union – Key results*, Luxembourg: Publications Office of the European Union.

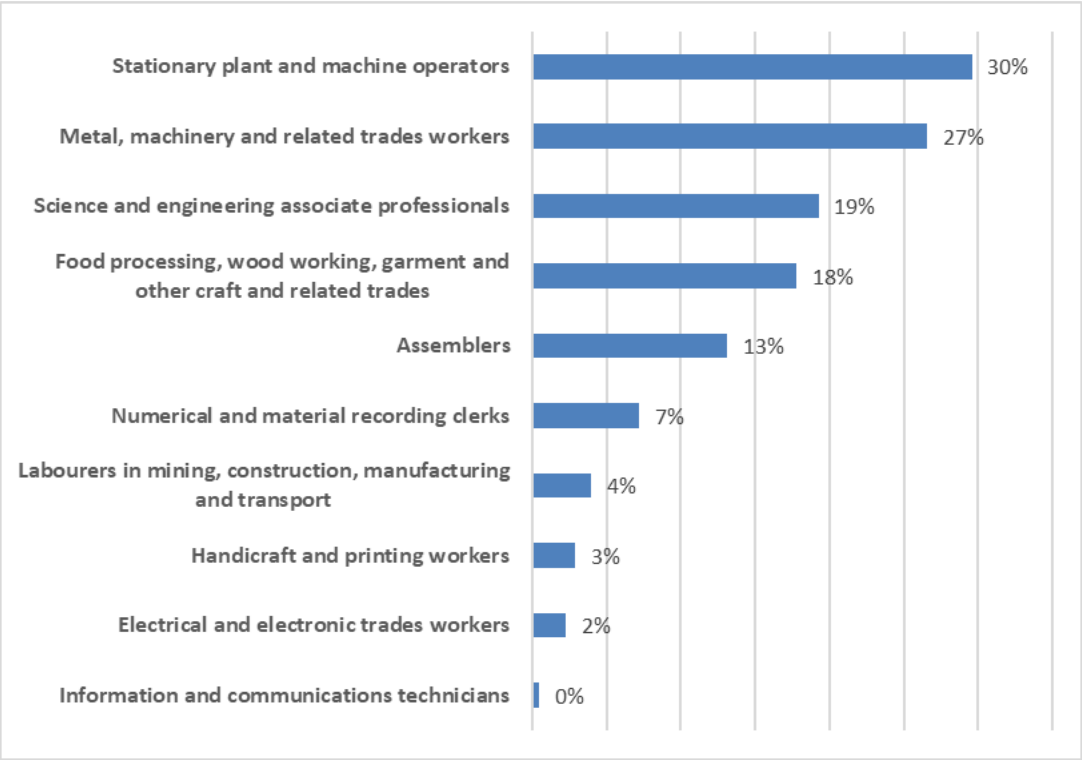
[13] Eurostat. (2025), *Artificial intelligence by NACE Rev. 2 activity* [isoc_eb_ain2].

[14] The construction sector ranks last among all 14 EU industrial ecosystems in both recent and long-term expected investments in digital transformation (Annual Single Market Report 2022, European Commission)

[15] OECD (2025), *Digital and AI skills in health occupations: What do we know about new demand?* OECD AI Papers No.36, OECD Publishing.

[16] Cedefop Skills Forecast 3D Scenario

Figure – Main drivers of VET-intensive employment by 2035



Source: Cedefop Skills Forecast (2026) and 3D+ Scenario exercise.

The analysis above illustrates that stronger investment in Europe's digital, green and defence priorities could shift part of future labour demand towards industrial and technology-intensive activities. The health and care sectors also remain an important source of demand: health associate professionals are projected to increase their share of total EU employment from 3.07% to 3.42% in 2035.[17]

For VET, these changes require both sufficient training capacity for occupations facing growing or persistent demand and the rapid updating of skills and education and training content as AI changes existing jobs. This also raises the importance of continuous upskilling and reskilling of the existing workforce. Evidence on the integration of AI in VET points to the importance of teacher and trainer skills, digital infrastructure, governance capacity and cooperation with businesses[18]. While the integration of AI in education and training carries certain risks, such as widening gap in access and reproduction of inequality, it can increase the adaptability and accessibility of VET[19]. It can enhance VET provision itself, including through labour market analysis, skills anticipation and the development and updating of curricula[20]. At the same time, given the uncertainty surrounding the longer-term effects of AI, VET systems will need to remain agile and responsive as technologies, tasks and occupational profiles evolve.

2. A common direction for VET

Europe needs more agile, strategic, open and connected VET. It should support successful transitions into employment, provide opportunities for upskilling and reskilling throughout working life, respond

[17] Cedefop. (2026). Skills forecast 2026

[18] Herrero, C., Portillo Berasaluce, J., Arce Alonso, A., Te Hennepe, E., Wisniewski, D. et al. (2026), *Analysis of the integration of Artificial Intelligence in VET systems - Austria, Belgium, Slovenia, Spain and The Netherlands*, Herrero, C. (ed.), Publications Office of the European Union, Luxembourg.

[19] OECD. (2026), *AI to support neurodivergent learners in vocational education and training*. OECD Publishing.

[20] OECD. (2026), *Developing vocational education and training with artificial intelligence*. OECD Publishing.

rapidly to technological and labour-market change and contribute directly to Europe's competitiveness, preparedness and social fairness. This Strategy is a key initiative of the Union of Skills. It builds on the 2020 Council Recommendation on VET and the Herning Declaration, endorsed in September 2025 by the Member States, European Economic Area and candidate countries, European social partners, European Commission and other stakeholders. The Herning declaration sets out the priorities and national-level actions on VET for 2026–2030 through shared objectives to strengthen its attractiveness, quality, inclusiveness and labour-market relevance, support the green and digital transitions and expand mobility and international cooperation.[21] The Strategy also responds to the European Parliament's resolution of 21 October 2026 on boosting skills in the Union.[22] The actions below are also in line with priorities of the second cycle of the European Education Area.

The Strategy focuses on key measures at European level to support Member States in strengthening VET, under three mutually reinforcing objectives:

1. **Promote agile and high-quality VET systems**, powered by innovation and strong basic skills so that provision keeps pace with changing technologies, occupations and the needs of the labour market and society.
2. **Mobilise VET for Europe's strategic sectors and labour-market transitions** through closer partnerships with business and investment.
3. **Create open and connected European VET** through learning mobility, support for candidate countries and mutually beneficial partnerships with priority partner countries.

The Strategy has been informed by an extensive consultation process. A call for evidence was organised, complemented by dedicated webinars and meetings with key stakeholders in the months preceding its preparation to discuss needs, challenges and possible policy responses. These exchanges involved, among others, social partners, representatives of VET learners and VET providers, Member State representatives, businesses and other relevant stakeholders.

European action will focus on areas where cooperation creates added value: mobility, skills intelligence, peer learning, sectoral partnerships, common tools, policy experimentation and the scaling-up of proven approaches, respecting the national responsibility for education and training systems and qualifications. Public authorities, social partners, businesses, VET providers and learners all have a role in its implementation.

2.1. Promoting agile and high-quality VET systems

Agility is the capacity of VET systems to anticipate and respond quickly to changing skills needs, technologies and occupations. It requires faster feedback from skills intelligence, timely updating of education and training content and quicker access to modern technologies and equipment. Relevance and quality are closely interconnected. High-quality VET is based on responsiveness to current and emerging labour-market and societal needs and on effective delivery through appropriate training content and infrastructure, qualified teachers and trainers and quality assurance. Agility enables VET systems to maintain this relevance as needs evolve while quality delivery reinforces trust.

Teachers, trainers and leaders of VET providers are central to the agility and quality of VET systems. They need up-to-date occupational and pedagogical skills to respond to technological and labour-market change, embed basic skills in occupational learning and use new technologies confidently and responsibly. Continuing professional development, closer cooperation with businesses and social partners and good working conditions are essential to attract and retain qualified professionals. This Strategy does not add a separate set of new actions for teachers and trainers, as these issues are being

[21] To help address urban-rural divides, the long-term vision for the EU's rural areas highlights the importance of access to education and training, including upskilling and reskilling opportunities, to support quality employment and the diversification of rural economies.

[22] European Parliament resolution of 21 October 2026 on boosting skills in the Union – opportunities for vocational education and training in times of transition (2026/2070(INI)), P10_TA(2026)0358.

addressed through the proposal for a Council Recommendation on an attractive teaching profession: the EU Teachers Agenda which is part of the 2026 Education and Skills Package. The EU Teachers Agenda will support VET teachers and trainers, including by inviting Member States to review their working conditions, develop flexible pathways into teaching for professionals from businesses, strengthen partnerships between VET providers, enterprises, chambers and social partners, offer VET teachers company internships and secondments and support, where appropriate, hybrid employment models allowing individuals to combine teaching with relevant professional activity.

2.1.1. Piloting a European Sectoral Training Accelerator

A focused sectoral pilot will test a lean process for accelerating the uptake, delivery and certification of industry-relevant training content as well as monitoring its deployment.

The European Sectoral Training Accelerator will be piloted using existing common training content developed under the Pact for Skills, Blueprint Alliances for Sectoral Cooperation on Skills, Centres of Vocational Excellence and EU Skills Academies, or in the context of EU level sectoral skills initiatives (including European sectoral business associations). It will focus on strategic sectors and involve leading EU companies to champion the projects. The Accelerator will also draw inspiration from WorldSkills and EuroSkills occupational standards to foster excellence in VET and industry engagement. The European Skills Intelligence Observatory will feed sectoral skills needs directly into the Accelerator.

The Accelerator will support VET providers across Europe to top-up national initial or continuing VET curricula with flexible short-term learning modules (including in the form of micro-credentials in line with the European Approach to micro-credentials) developed at EU level to ensure that learners can rapidly acquire specialised, employment-ready skills required in dynamically changing labour markets. The modules will not replace national qualifications but complement them. Country-specific certification of the skills acquired will be ensured through a close cooperation of VET providers, social partners and national qualification authorities and competent bodies with European-level sectoral associations. The pilot will explore the extent VET providers have the autonomy to design parts of curricula, how effective and sustainable partnerships with EU sectoral associations can be developed to complement national qualifications with EU level sectoral certification. Development of quality criteria will be part of the pilot to ensure trust, transparency and understanding of the skills acquired across the European labour market.

QUALITY AND AGILITY

Pilot, in 2027, a European Sectoral Training Accelerator*, based on existing common training content, with the aim to increase the uptake, delivery and sectoral certification of flexible modules in response to emerging skills needs. The Accelerator will bring together VET providers, businesses, social partners, national authorities and European sectoral business associations to test how VET providers integrate and deliver common training content developed at EU level, supported by quality criteria, and to test how skills acquired can be certified within national systems to increase the trust in, and transparency and understanding of, skills across European Labour Market.*

2.1.2 Strong basic skills in VET

Strong basic skills are indispensable for high-quality VET provision, as well as for occupational excellence and lifelong learning. In line with the Action Plan on Basic Skills adopted in 2025 as part of the Union of Skills, they encompass literacy, mathematics, science, digital and citizenship competences. Together they enable learners to master occupational content, acquire new knowledge, progress to further learning and participate fully in society and the economy. Their importance becomes even greater in times of disruptive technological change and rapidly evolving labour-market needs. Strong basic skills also give people the capacity to continue learning throughout their careers and

respond to changes that cannot always be anticipated. Solid foundations in basic skills should be established from early stages of education and where relevant further developed throughout initial VET. Identifying learners' basic skills strengths and learning needs on entry into initial VET can help tailor teaching methods and content and target additional support. Integrating basic skills development into vocational programmes, including apprenticeships, combines explicit teaching with applications in vocational contexts, complemented by timely, targeted support to the learners who need it. Support works better when accessible within the learning timetable and when it avoids additional costs and stigma.

Citizenship skills enable individuals to act responsibly, including through digital literacy, ethical and critical thinking, collaboration, or intercultural communication. They benefit individuals at work and as active participants in democratic life, and they strengthen trust in democratic institutions, which underpins democratic resilience and the stable environment needed for investment and sustainable growth. As in general education, there is also a need to develop citizenship skills in initial VET. These skills can be developed combining dedicated learning activities with occupational and work-based learning – for both young people and adults.

Quality assurance also plays an important role in strengthening basic skills in VET. A systematic approach can help VET systems and providers ensure that basic skills are not only included in curricula but are also effectively taught and assessed. This includes defining clear learning outcomes, monitoring learners' progress, evaluating the effectiveness of teaching and learning, including in work-based settings, and using the results to continuously improve provision. Applying this approach can help identify weaknesses and target support where it is most needed, thereby contributing to better basic skills outcomes for learners. Work in this area of basic skills will be implemented in synergy with the other elements of the Education and Skills Package, notably the proposal for a Council Recommendation on basic skills. Regarding citizenship competences, this work will take into account the future EU citizenship competence framework and related guidance aimed at promoting democratic citizenship.

BASIC SKILLS

***Reinforce the quality and quality assurance of basic skills in VET**, by supporting Member States in applying the European quality assurance reference framework in VET (EQAVET) to basic skills through EU grants to EQAVET national reference points and guidance. In cooperation with the OECD, the European Commission will support, from 2027, the evaluation of innovative approaches to strengthening basic skills in initial VET, including early identification of learners' needs, timely targeted support, cooperation between general-subject and vocational teachers, and coordination between VET providers and training companies. This can include practical guidance for in-company trainers and smaller companies.*

*Regarding citizenship competences in VET, the Commission will launch **a joint programme in 2027 with the Council of Europe to strengthen citizenship education in VET**, including through capacity-building activities for Member States and the development of tailored support and learning materials for VET teachers, trainers and learners.*

2.1.3. Modern training environments and vocational excellence

The 2025 Herning Declaration invites Member States to 'maximise the potential, reliability, and responsible use of AI (in line with the Artificial Intelligence Act)**'** and of other technological advancements - such as large language models, virtual and extended reality. Some evidence shows that the integration of AI in VET can increase its adaptability and accessibility, as well as enhance VET provision. However, despite the rapid development and adoption of advanced technologies such as AI across the labour market, knowledge gaps persist regarding its integration into VET systems. Further evidence would allow a better understanding and facilitate more solid evidence-based policy responses for the safe and effective integration of AI in VET. Against this backdrop, the European Commission

will continue to explore the evolving effects of AI on VET related to technologies such as agentic AI and robotics while also considering the security risks of integrating such technologies in VET contexts. Other areas of evidence gathering will cover the effects of digitalisation in specific VET related shortage sectors. The Commission will also work to support stakeholders by disseminating emerging findings and facilitating exchange of practices and policy discussions on how VET can best respond to a rapidly changing technological landscape, including by publishing evidence-based policy pointers for the safe, human-centred and effective integration of AI in VET in 2027. Moreover, VET stakeholders will also be supported to benefit from the AI-ready education initiative under the Education and Skills Package, and for the take-up of the recently developed EU-OECD AI Literacy Framework for primary and secondary education, as well as the future AI Literacy Certificate.

Vocational excellence depends on strong cooperation between VET providers and their regional and sectoral ecosystems. Erasmus+ Centres of Vocational Excellence (CoVEs) are transnational partnerships that bring together VET providers, employers, social partners, public authorities, research and higher education institutions to build skills ecosystems and deliver high-quality training that responds to sectoral and regional needs, including in cross-border regions. Closely linked to regional and local strategies, including smart specialisation, they have become a model for innovative, agile and learner-centred VET, addressing quality, relevance and attractiveness together. CoVEs can therefore respond to the call of the European Skills High-Level Board for stronger regional and sectoral ecosystems. To achieve systemic impact, however, their results need to be mainstreamed into national and regional systems. This requires the engagement of policymakers, structured multi-level governance, closer links with innovation policy initiatives and possible related financing, and support mechanisms that connect and scale up vocational excellence initiatives at European, national, regional and local level.

MODERN TRAINING ENVIRONMENTS

Set-up a European Vocational Excellence Network in 2027 to help *policy makers and other stakeholders embed vocational excellence policies in national and regional VET systems in a sustainable way. By facilitating links and synergies between national and regional level VET reform initiatives and the Erasmus+ Centres of Vocational Excellence projects, it will help scale up successful results and approaches.*

2.2. Mobilising VET for strategic sectors and labour-market transitions

2.2.1. Closing the divide between innovation, vocational training and industry

Europe's global competitiveness hinges on the speed with which research can be turned into market-ready innovation. In many of the EU's strategic sectors, companies – and particularly small- and medium-sized enterprises (SMEs) – are hampered by a shortage of skilled personnel and by limited access to cutting-edge technologies. This slows the commercialisation of breakthroughs, weakens the resilience of supply chains and reduces the EU's ability to lead in emerging fields. Closing the gap between applied research, VET and industry is thus vital for Europe to preserve and boost its status as a world-class innovator.

VET Business Partnerships can pool investment in equipment, technology transfer, demonstrations and shared training facilities, to be jointly used by employers, including SMEs, intermediary bodies, VET providers and applied research organisations. Based on identified needs, the Commission will support the setup of VET Business Partnerships that offer training opportunities on innovative equipment and practical work-based learning for apprentices, upskilling and reskilling of workers and continuous development of their teachers and trainers' skills. By fostering the link to applied research and innovation, the partnerships can play a key role in developing new products and processes and introduce innovation to the market in strategic sectors. For example, this support can help deploy electrification technologies by transnational partnerships between companies and vocational

schools to share equipment for training installers.[23] VET-business partnerships will be complementary to CoVEs which have a broader scope linked to VET systems and qualifications, and will build on the existing Pact for Skills partnerships.

Creating local employment and skills ecosystems, including VET institutions responsive to regional labour market needs, is essential to foster quality employment and innovation opportunities and to address territorial disparities to ensure the right to stay. Particular attention should be given to sectors with quality job creation potential in line with smart specialisation strategies.

CUTTING EDGE TRAINING OPPORTUNITIES

VET Business partnerships *will offer joint state-of-the-art training facilities and training modules developed with industry partners across value chains in strategic sectors such as AI and digital, electrification and clean tech, health and biotech, agriculture or defence, accelerate technology transfer and equip the (current and future) workforce with the relevant skills. The European Competitiveness Fund (ECF), through activities in support of skills development in strategic sectors, can support VET Business partnerships.*

2.2.2 Joining forces with businesses to ease labour market transitions

Quality apprenticeships are a win-win for learners and employers. They equip young and adult learners with entry into employment, practical expertise and the flexibility to upskill and reskill as market conditions evolve, thereby enhancing their employability and career resilience. Their contribution depends on structured learning, effective mentoring, recognised learning outcomes and fair working conditions in an increasingly dynamic European labour market. Apprenticeships also represent a key offer under the reinforced Youth Guarantee to facilitate young people's entry into the labour market. In addition, synergies will also be built with the EU Skills Guarantee which aims at supporting workers in sectors undergoing restructuring, by providing reskilling, upskilling, on-the-job training and support to companies in strategic sectors to recruit workers more quickly.

In a context where labour and skills shortages are tightening across many key sectors of the EU, apprenticeships become an essential, long-term instrument for stabilising and expanding the workforce. By linking education and training directly to the needs of the economy, they enable firms to react swiftly to shifting demand, particularly in strategic and emerging sectors such as green technologies, digital and data-driven services, agriculture, advanced manufacturing, and health-care innovation.

Sectoral apprenticeship clusters can support employers, particularly SMEs, to share training capacity and respond to changing skill needs, while strengthening the employability of young and adult apprentices by equipping them with the skills required in the labour market.

These clusters will empower employers to collaborate on shared challenges, leverage new opportunities for apprentices and deploy industry innovative best practices (for example in STEM apprenticeships). In border regions, such cooperation can also support cross-border apprenticeships, allowing learners to combine training in one Member State with work-based learning in a company in the neighbouring one.

WORK-BASED LEARNING

Establish, in 2027, sectoral apprenticeship clusters *through the European Alliance for Apprenticeships, bringing together employers, social partners, VET providers and apprentices. The clusters will pool training capacity, strengthen mentoring and trainer development, and co-create and test innovative approaches to apprenticeships for young people and adult learners. Links with VET Business Partnerships will focus on access to shared equipment and training*

[23] Electrification Action Plan COM (2026) 595

WORK-BASED LEARNING

modules. To acknowledge exceptional commitment, the Commission will honour the most innovative sectoral partnerships, top-performing employers, and outstanding apprentices.

2.3. Open and connected European VET

2.3.1. Making learning mobility an integral part of VET

Learning mobility strengthens occupational, language, personal and citizenship skills. These skills are needed for acquiring higher-level, specialised and future-oriented competences. Citizenship skills, developed during mobilities through personal accountability and exposure to different cultures and learning approaches, are critical for facilitating social inclusion and active participation in democratic life. Employers also value the exchange of workplace practices and the greater openness to mobility at a later stage, that a learning period abroad can create. The Council Recommendation 'Europe on the Move' – learning mobility opportunities for everyone (13 May 2024) sets a European target of at least 12% of VET learners benefitting from learning mobility abroad by 2030. However, participation remains well below this level, in particular due to limited funding in the current programming period. Demand for VET learning mobility is nearly double the funding opportunities available.

The Recommendation identifies various **barriers to learning mobility** and how these can be removed, for example related to quality, preparation (including foreign languages) and recognition of learning periods abroad. Smaller VET providers and employers face particular difficulties, for example in accessing funding, finding reliable partners and setting up and organising high-quality mobility placements, while financial and social constraints, accessibility, administrative, recognition and information barriers remain significant for learners (including apprentices) and staff. In order to ensure the implementation of high-quality and impactful learning mobility, mobility activities therefore need to be treated as an integral part of the learner pathway, with clear arrangements for preparation, assessment, validation and follow-up[24]. This approach will be further strengthened through the Erasmus+ programme, which has a key role in supporting mobility for VET learners and staff, and cooperation and capacity building for VET organisations. In border regions, short and recurring cross-border placements can complement longer mobility periods abroad and help prepare learners for a labour market that extends across the border, thereby fostering the right to stay.

MOBILITY

*Set up a dedicated **EU marketplace for the mobility of VET learners and apprentices**, combining partner searches, support structures for providers and employers and stronger communication and awareness-raising to support high-quality and inclusive learning mobility, and help remove the (practical and systemic) barriers to mobility as identified in 'Europe on the Move'.*

The opening of the Commission's Blue Book traineeship programme to VET graduates will also provide new opportunities for VET graduates to gain professional experience within European institutions. This initiative reflects the needs of public administration to enlarge the pool of talent in terms of vocational profiles and promotes the parity of esteem with tertiary education graduates.

[24] Learning mobility panel - Citizens' Engagement Platform

2.3.2. Preparing candidate countries for membership and the internal market

VET reform in candidate countries and potential candidates is an investment in the future resilience and functioning of the EU. Preparation for the internal market requires qualifications that are relevant to the labour market, robust quality assurance, effective and wide-spread work-based learning, transparent skills and qualifications, and strong lifelong learning systems, in accordance with EU practices and standards. High-quality, attractive and inclusive VET and flexible pathways throughout the education and training systems also support youth employment, economic convergence and the capacity to benefit from investment. Intensifying the integration of candidate countries and potential candidates in the EU policy framework will be of crucial importance to allow a gradual integration of these countries in the EU systems. The European Training Foundation (ETF) is contributing to the progressive association of candidate countries and potential candidates with relevant Union of Skills initiatives and VET cooperation framework.

ENLARGEMENT

*Support **VET modernisation through the accession process**, including, where relevant, through the Reform Plans and financial instruments as one of the elements for enlargement and economic competitiveness. This includes, i) ETF's support in the enlargement process related to education, skills and labour market reforms, and in identifying priority reforms, technical assistance needs and opportunities for participation in relevant EU VET initiatives; and ii) the mobilisation of the TAIEX (Technical Assistance and Information Exchange) and Twinning instruments.*

2.3.3. Mutually beneficial partnerships with partner countries

International VET cooperation can strengthen partner-country skills development while supporting sustainable investment, resilient value chains and local job opportunities. The quality and flexibility of VET delivery in non-EU partner countries increasingly impact European investment and value chains, while the EU may also benefit from effective pathways for skilled talent in vocational occupations. Strategic frameworks such as the Global Gateway, the Pact for the Mediterranean, including the Mediterranean Youth Skills and Jobs initiative, and Talent Partnerships provide a basis for more coherent and operational cooperation linked to labour-market needs of partner countries and the EU and concrete local employment opportunities and investment needs.

Partnerships will create benefits on both sides. Skills intelligence, education and training, employer participation, quality assurance, certification and employment services need to be integrated more into strategic investment and reflect jointly assessed needs. When cooperation includes labour and talent mobility it should further support local employment and training capacity, while assessing the risk of depletion and providing fair recruitment safeguards. Cooperation on recognition of qualification should take into account the proposal for a Directive on the recognition of qualifications of third country nationals.

INTERNATIONAL PARTNERSHIPS

A. ***Support VET delivery and local capacity building for jointly identified employment and investments needs, including those supported through Global Gateway**, and the Pact for the Mediterranean's Youth, Skills and Jobs Initiative. The Commission will work with partner countries, employers and implementing partners to improve provider capacity and quality, employer support, public-private partnerships, teachers and trainers, labour market needs assessment and intermediation, quality assurance and pathways to local employment.*

B. ***Connect VET cooperation with partner countries with Talent Partnerships, Legal Gateway Offices and the EU Talent Pool,** focusing on responsible labour and talent mobility, while reinforcing local training capacity, monitoring recruitment outcomes and effects on partner*

INTERNATIONAL PARTNERSHIPS

country skills availability, taking into account the needs and engagement of EU employers and EU Member States' policies for skilled workers from partner countries.

C. Use the potential of the Erasmus+ programme international dimension to ***support cooperation projects linking European and partner countries' VET providers*** *aiming to strengthen learners' employability and skills, enhance trainers' competencies and better align vocational training with global industry trends and labour market needs.*

3. How we will make it happen – governance and funding

The implementation of this Strategy should remain centred on the needs of learners and businesses, ensuring that VET offers attractive, high-quality and flexible learning pathways that support successful transitions into the labour market and skills development throughout life. Its delivery will build on the established European VET governance framework, involving Member States, social partners, VET providers, businesses, learners and other relevant stakeholders. Existing structures, including the Advisory Committee on Vocational Training and the European Skills High-Level Board will support strategic dialogue, implementation and follow-up, with the support of Cedefop and ETF. The Commission will coordinate implementation of the strategy with the work on teachers and basic skills, distinguishing support for VET under the Education and Skills Package.

Modern VET requires sustained and well-targeted public and private investment. National and regional resources remain central. VET and skills needs should also be appropriately reflected in the implementation of relevant EU funding instruments under the 2028-2034 Multiannual Financial Framework, in line with their respective objectives and without prejudging the outcome of the ongoing negotiations: Erasmus+, National and Regional Partnerships Plans (NRP Plans), the European Competitiveness Fund, the Global Europe instrument, and other relevant Union instruments can support mobility, VET reforms, cooperation, provider capacity, combining investment in infrastructure with teaching, mentoring and learner support as well as policy experimentation. In particular, among their objectives, the NRP Plans will promote improving education and lifelong acquisition of skills and specifically require Member States to support youth employment and vocational education and training. Investment under shared management should be better aligned with identified sectoral, regional and local needs. Sectoral co-financing is important where businesses benefit directly from shared training capacity and equipment. Participation arrangements should remain proportionate to SME capacity and allow pooling of resources through chambers or employer organisations.

Relevant VET reforms and investment will be guided by the annual Council Recommendation on Human Capital and monitored through the European Semester, strengthening the link between European priorities and national implementation. Monitoring will rely on analytical work conducted by Cedefop and existing indicators and policy coordination frameworks. It will include the agreed 2030 objectives for STEM participation and learning mobility.

4. Conclusion

VET has a key role to play in equipping people with the skills needed in a rapidly changing economy and society, supporting Europe's competitiveness, resilience, social and territorial cohesion. Vocational professionals are essential to Europe's strategic sectors, infrastructure and essential services, while demographic change will require millions of workers to be replaced in the coming decade. This Strategy provides a strategic framework to further strengthen the quality and agility of VET, better mobilise its potential for strategic sectors and labour-market transitions, and create a more open and connected European vocational education and training.

Europe's ambitions can only be achieved with highly skilled vocational professionals who build, operate, maintain, care, produce and innovate. By combining quality with agility, national ownership with European cooperation and investment and reforms with accountability, this Strategy aims to make VET a first-choice pathway and a source of competitiveness, good-quality jobs and resilience. The Commission invites the European Parliament, the Council, the Member States and social partners to support the implementation of the Strategy and actively contribute to delivering its objectives.

List of actions

Action	Year of the launch
1. **European Sectoral Training Accelerator**	2027
2a. Support the development of basic skills in VET through quality assurance activities in the framework of the EQAVET network.	2027
2b. Provide capacity-building support and evidence to strengthen basic skills in VET through cooperation with the OECD and the Council of Europe	2027
3. **European Vocational Excellence Network**	2027
4. **VET Business Partnerships**	Preparatory work in 2027 – ECF starts in 2028
5. **Sectoral apprenticeship clusters**	2027
6. **EU marketplace for the mobility of VET learners and apprentices**	2028 (2027 – IT development)
7. Support VET modernisation in candidate countries	From 2027 onwards
8a. Support VET delivery and local capacity building to respond to evolving job opportunities and labour market needs, including those supported through Global Gateway and other strategic investment packages	Ongoing
8b. Connect mutually beneficial Talent Partnerships and recruitment facilitated through the EU Talent Pool with VET cooperation	Talent Partnerships – ongoing; Talent Pool – as from end 2027/early 2028.
8c. Support international cooperation projects linking European and partner countries' VET providers with Erasmus+	2028