



CEDEFOP INSIGHTS

Policy approaches to tackle **VET teacher** shortages in the EU





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Insights from national policy monitoring and analysis

Please cite this publication as:

Cedefop. (2026). *Policy approaches to tackle VET teacher shortages in EU: Insights from national policy monitoring and analysis*. Cedefop Insights. Publications Office of the European Union. <http://data.europa.eu/doi/10.2801/5087236>.

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Luxembourg: Publications Office of the European Union, 2026



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PDF ISBN 978-92-896-3969-9
ISSN 3094-6255
Doi: 10.2801/5087236
TI-01-26-019-EN-N

The European Centre for the Development of Vocational Training (Cedefop) is the European Union's reference centre for vocational education and training, skills and qualifications. We provide information, research, analyses and evidence on vocational education and training, skills and qualifications for policymaking in the EU Member States. Cedefop was originally established in 1975 by Council Regulation (EEC) No 337/75. This decision was repealed in 2019 by Regulation (EU) 2019/128 establishing Cedefop as a European Union Agency with a renewed mandate.

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Table of Contents

Acknowledgements.....	1
Chapter 1. Introduction.....	2
Chapter 2. Context.....	4
Chapter 3. Policy responses and emerging approaches	7
3.1. Entering the teaching profession	7
3.2. Continuing professional development (CPD)	9
3.3. Career development and retention measures	12
Chapter 4. Country examples.....	14
4.1. Germany: attracting side entrants to the teaching profession.....	14
4.2. France: addressing attractiveness and retention of teachers	16
Chapter 5. Conclusions and policy pointers.....	18
5.1. What the evidence shows.....	18
5.2. Policy pointers	19
References	21

Acknowledgements

This Insight is produced by Cedefop's Department for VET and Qualifications (DVQ) under the supervision of [Irene Mandl](#), Head of Department, as part of the VET Policies and Systems project. It is the first of a series of Insights that examine themes and issues identified in the process of Cedefop's monitoring and analysis of the implementation of EU priorities in national VET.

The analysis and preparation of the report were coordinated by [Irina Jemeljanova](#), Cedefop expert, with the support of [Vasileios Symeonidis](#), Cedefop expert. The analysis and drafting was done by the consortium led by Visionary Analytics (Lithuania), in cooperation with Istituto per la ricerca sociale (IRS, Italy) and Panteia (the Netherlands) as part of the framework contract 'Support to integrated monitoring of NIPs in line with EU priorities 2021-25 in EU-27, Norway, and Iceland', with specific contribution of [Austėja Švedkauskienė](#), Visionary Analytics, and [Thomas de Winter](#), Panteia. The Insight was peer reviewed by [Vasileios Symeonidis](#) and [Irene Psifidou](#), Cedefop experts, valuable comments were provided by [Anthie Kyriakopoulou](#), Cedefop expert, and [Vicky Oraiopoulou](#), Cedefop Policy officer.

CHAPTER 1.

Introduction

The lights are on in the classroom, but the machines are silent. Not because there are no learners, but because there is no teacher to switch them on. What once seemed a distant scenario has become increasingly common across Europe's vocational education and training (VET) systems. From engineering workshops in Germany to hospitality schools in Spain and healthcare centres in the Netherlands, policymakers face the same question: who will train the next generation of skilled workers if there are not enough teachers in VET.

The recent European initiative, the [Union of Skills](#) (2025), has explicitly acknowledged shortages of teachers and trainers as a structural constraint on Europe's capacity to deliver on its skills ambitions, linking them to broader challenges in competitiveness, innovation, and the green and digital transitions. Throughout the decade, this issue has been increasingly recognised and addressed in European policy frameworks. [The Council Recommendation on VET](#) (2020) and the [Osnabrück Declaration](#) (2020) emphasised the central role of well-qualified teachers and trainers for building resilient, future-oriented VET systems. More recently, the [Herning Declaration](#) (Danish Presidency of the Council of the European Union, 2025) described VET teachers and trainers as a strategic resource and called for stronger measures to improve the attractiveness of the teaching profession, initial teacher education (ITE), and continuing professional development (CPD). The forthcoming EU Teacher and Trainer Agenda aims to translate these commitments into more coherent action at the EU and national levels. Against this backdrop, this Cedefop Insight examines the scale and drivers of VET teacher shortages across Europe and explores how countries are responding.

The Insight draws on the analysis of the policies annually reported by Cedefop's ReferNet network in the EU Member States (MS), Norway and Iceland, and available in the [Timeline of VET policies in Europe](#). In addition, it brings in the information from relevant Cedefop projects and research done by European and international organisations to set the context and discuss the trends and challenges. Selected examples are cited to illustrate the main types of policy responses observed across the countries, without aiming to provide an exhaustive inventory of all national measures. The countries mentioned are therefore illustrative rather than representative, reflecting the availability of comparable and sufficiently detailed information on relevant measures. In many cases, similar approaches can be found in other MS that are not explicitly cited. Two country cases studies are also presented in more detail. The paper discusses VET

teachers exclusively, and not trainers. VET teachers are professionals who typically work in school-based settings, teaching general, theoretical, or practical vocational subjects, and are usually required to hold pedagogical and subject-specific qualifications (Cedefop, 2022).

CHAPTER 2.

Context

Teacher shortages have both quantitative and qualitative components. A shortage occurs not only when there is an insufficient number of available teachers to fill open positions or teachers not taking up the job, e.g. due to unattractive working conditions, but also when employed teachers lack qualifications or competences necessary for their roles (Van Breukelen & Theelen, 2026). The latter qualitative component is especially important in VET instruction, where teachers need up-to-date sectoral knowledge and high technical skills. Similarly, the European Commission's Joint Research Centre (JRC) frames teacher shortages as a multidimensional issue, noting the overall shortage of teachers, teacher mismatches across subjects and geographies, and challenges in recruitment and retention (Di Pietro, 2023).

This Cedefop Insight employs this broad definition of teacher shortages to highlight the need for targeted, multi-pronged strategies to both recruit and retain qualified teachers in VET and discusses the diverse approaches that EU Member States (MS) employ to address this issue in Chapter 3.

Teacher shortages are among major issues across the EU, affecting all 27 education systems. Shortages can occur in specific subject areas, including science, technology, engineering, and mathematics (STEM) and foreign languages, or in specific geographical areas, such as rural or remote regions (European Commission/EACEA/Eurydice, 2021). There is also variation of the intensity across the MS. This trend also holds true for VET teachers: 2024 EURES data indicate that 14 MS have shortages, and compared to the previous years, the number of MS reporting VET teacher shortages has increased, while only four, Greece, Spain, Austria and Portugal have surpluses (EURES, 2024). Additional insight into the scale of demand can be drawn from [online vacancy data](#): VET teacher posts account for around 6 % of vacancies advertised through EURES, suggesting sustained recruitment pressures and cross-border labour market demand in several MS.

National reports reflect these trends in a range of MS: in Denmark and Portugal, around one-third of VET school principals report shortages, Germany meets around 80 % of its estimated demand, and Sweden only around 44 % (OECD, 2021). In Belgium (Flanders), 2022 PISA data indicate that 80.1 % of learners attended schools, including VET, where learning was impacted by teacher shortages, the highest rate in the EU (Cedefop, 2025c).

Beyond acknowledging shortages, EU-level analysis identifies a range of factors contributing to the issue. On the one hand, the broader demographic

challenge in Europe is also reflected in a rapidly ageing VET teaching workforce. Data from 12 MS show that almost half (44.2 %) of upper-secondary VET teachers across Europe are over 50 years, indicating an imminent wave of retirements and shrinking supply of qualified teachers (Psifidou, 2025a). On the other hand, young people are less likely to enter the teaching profession; less than 2 % of respondents choose teaching as a preferred profession (Psifidou, 2025b).

In VET teaching, its perceived low attractiveness, especially when compared with higher-paid, in-demand sectors, amplifies this effect (Cedefop, 2022). Challenges, including low remuneration, poor working conditions, and limited opportunities for career growth, not only discourage potential entrants but also undermine the retention of existing teachers, further driving shortages (Cedefop, 2022; Psifidou et al, 2025). However, as recent Cedefop pilot teacher survey data show the attractiveness of the VET teaching career is closely linked not only to pay and entry requirements but also to teachers' wellbeing, workload, opportunities for professional development, and the level of pedagogical support available in schools (Psifidou et al, 2026).

The OECD's 2021 TALIS study of 15 countries, including 12 MS, finds that, on average, VET teachers are paid 7.8 % less than their general education counterparts, even when controlling for personal and job characteristics (OECD, 2021). The same study also finds that temporary contracts are more common among VET teachers, contributing to job insecurity and financial precarity and discouraging teachers from remaining in the field. As regards those teachers who stay in the profession, a study of VET schools in the Baltic states and Norway identifies heavy workloads, limited access to CPD, and insufficient time to support increasingly diverse learner groups as key factors contributing to VET teachers' burnout and turnover (Tikkanen et al, 2024). Cedefop's work on learning outcomes similarly indicates that many VET teachers struggle to translate competence-based curricula into effective teaching practice due to limited institutional support, thereby increasing professional strain and reducing job satisfaction (Cedefop, 2024a; Cedefop, 2025b; Symeonidis et al, 2025).

Cedefop pilot teacher survey data (Psifidou et al., 2026) indicate that only 9 % of VET teachers feel valued in their countries, and barely 13 % think they receive an adequate salary for the work they do, with almost half reporting that they feel overburdened by additional duties resulting from teacher shortages. The perceived administrative overload among initial VET (IVET) teachers (37 % of respondents) and persistent behavioural challenges they face in the classroom daily (27 %) are important factors impacting job satisfaction. Against this backdrop, it is not surprising that approximately one third of teachers (34 %) consider their career progression to be slower than expected. Rather than devoting time to innovative

pedagogical approaches or sector-specific professional development, many teachers report being predominantly occupied with administrative tasks, crisis management and covering for absent colleagues. The data also signal serious concern about teacher wellbeing, with six in 10 respondents experiencing physical exhaustion and sleeping difficulties (Psifidou et al., 2026).

Furthermore, labour market challenges in other areas complicate the picture. The EURES data point to persistent shortages in medium-qualification occupations in sectors such as construction, transport, mechanical trades, and personal services, all core areas served by VET systems (European Labour Authority, 2025). These shortages increase the need for VET programmes to train additional workers. In systems where VET teachers are recruited primarily from relevant occupational fields, such shortages may also heighten competition for experienced professionals.

As a result, while demand for VET provision rises, the supply of potential VET teachers may become more limited.

Finally, it is important to note that important gaps in evidence limit a more precise understanding of the problem and the effectiveness of policy responses. Differences in employment status, contractual arrangements, and institutional location place VET teachers in a statistical blind spot, making them difficult to capture consistently in education and labour market data. Cedefop's ReferNet country reports consistently highlight gaps in comparable statistics on VET teacher recruitment, participation in CPD, and the scale of shortages (Cedefop, 2022). UNESCO reaches similar conclusions, emphasising persistent gaps in national monitoring systems and underlining that effective strategies to address teacher shortages depend on reliable, disaggregated data (UNESCO, 2023). To address these gaps, the [European Vocational Teacher Survey \(EVTS\)](#) is expected in 2025-2026 to collect harmonised data from more than 10 000 VET teachers across 22 MS and provide new insights into working conditions, professional development, and career trajectories (Cedefop, 2025a).

CHAPTER 3.

Policy responses and emerging approaches

This chapter reviews how European countries are responding to VET teacher shortages, focusing on policy measures that aim to recruit new teachers, strengthen their professional development, and improve retention and career attractiveness. The policy responses discussed below are grouped into three broad themes that recur across countries: recruitment measures, including ITE reforms and facilitating side entry; CPD, including support for both novice and experienced teachers and skill-building to address qualification gaps; and broader career progression and retention measures, addressing working conditions, pay, mobility, and recognition. Together, these approaches provide insight into how countries are attempting to address both immediate staffing needs and longer-term challenges related to the attractiveness and sustainability of the VET teaching profession.

3.1. Entering the teaching profession

Perhaps the most direct way to address teacher shortages is to recruit new entrants to the profession. Some countries aim to reform the existing VET teacher education system and to ease entry for individuals from sectors or the general education sector.

3.1.1. Initial (VET) teacher education reform

As previously discussed, teaching is not among the most preferred professions for young people. To support those who pursue a teaching career, many MS have aimed to reform ITE, improving the preparedness of teachers-to-be. Well-designed ITE, complemented by mentoring and induction, strengthens professional identity, improves retention of early-career VET teachers and lays the foundation for lifelong professional development.

Embedding inclusive approaches in ITE equips teachers to recognise early signs of disengagement, differentiate instruction and foster positive classroom climates, supporting Europe's objective of more inclusive and resilient education and training systems (Psifidou, 2025b) and prepare teachers to work with diverse learner groups. Cedefop's research and [toolkits](#) highlight that high-quality ITE is essential to bridge workplace expertise with effective and inclusive pedagogy, and to develop teachers' capacity to manage diverse learning environments, prevent

early leaving, and adapt to digitalisation, sustainability and evolving occupational standards.

ITE reforms cover a wide range of interventions, from supporting students throughout their studies to facilitating their smooth transition to the classroom. For example, in [Belgium \(Flemish Community\)](#), pre-admission tests on study skills and language competency have been introduced for incoming ITE bachelor's students. These tests are not linked to admission outcomes, but rather identify areas for remedial support, ensuring success throughout the programme. This measure also covers students studying VET education provision (Cedefop & ReferNet, 2025c). In 2019, [Iceland](#) established that the final year of teacher education should be a salaried training period with in-classroom placements. This measure significantly increased ITE attractiveness, leading to a 45 % increase in applications for ITE programmes (Cedefop & ReferNet, 2025c).

Several countries have made broader changes to their teacher education systems. Since 2017, [Italy](#) has standardised ITE education pathways by updating curricula, integrating internships, and establishing public competitions for teacher recruitment. This set of measures creates a clear and comprehensive pathway toward becoming a permanent teacher, eliminating career uncertainty and encouraging potential entrants to teaching. Similarly, whole-system reforms have been implemented by [Czechia](#) and [Portugal](#) (Cedefop & Refernet, 2025c).

3.1.2. Side entry and hybrid teaching

While most of the policy measures discussed above concern ITE broadly, including ITE for VET, Cedefop observes that VET-specific ITE varies greatly across MS. While Germany and Finland have some established pedagogical qualification requirements, countries such as Greece often hire VET teachers based on professional experience (Psifidou, 2025b). These examples illustrate a diversity of paths into the VET teaching career. As such, many countries develop policy measures that establish multiple entry points into teaching. [Germany](#) aims to attract qualified sector professionals to the teaching profession in North-Rhine-Westphalia, filling gaps in subject areas with shortages. First implemented in 2018, the measure permits individuals with a tertiary degree in a target area, e.g. machine technology, electrical engineering, social pedagogy, health, to work in schools without undergoing traditional teacher education and passing examinations. Supporting lateral entrants in their new roles also requires in-service training in basic pedagogy (Cedefop & ReferNet, 2025c, see also a case in Chapter 4).

Similarly, [Slovakia](#) passed legislation in 2015 that made the qualification requirements for VET instruction more flexible in order to attract business and

sector professionals to teaching roles (Cedefop & Refernet, 2025c). The [Netherlands](#) has also redeveloped its system of teacher qualifications to facilitate mobility within and between education sectors, including VET, since 2021. The education ministry aims to design flexible qualifications, which can be combined in different ways as a teacher progresses through their career. For example, a teacher could specialise in one subject and instruct it across primary, secondary, and vocational education. Conversely, they could specialise in multiple subjects in one level of education. This measure also includes a provision to validate compatible competences for side entrants coming from another relevant sector. Once implemented, this programme will be an important benchmark for assessing the efficacy of side-entry pathways (Cedefop & Refernet, 2025c).

Some MS, including [Bulgaria](#) (since 2016) and [Croatia](#) (since 2024) have developed a hybrid teacher model, allowing qualified sector professionals to teach part-time while retaining their original jobs (Cedefop & Refernet, 2025c). Hybrid models, though common in practice across the EU, have virtually no evaluation data and should be investigated as an area of future research (Cedefop, 2022).

3.2. Continuing professional development (CPD)

As previously noted, teacher shortages have a qualitative component, wherein existing teachers need relevant, up-to-date skillsets. To address this gap, most MS have expanded and modernised their CPD arrangements. CPD expansion helps to both recruit and retain teachers, addressing the teacher shortage from multiple angles. For new entrants to the profession, having professional development opportunities increases the attractiveness of the teaching career. CPD for novice teachers also includes induction programmes that facilitate their transition to teaching, although in some countries, induction is perceived as an extension of ITE. In-service professional development provides personal and professional support to practising teachers and contributes to job satisfaction and retention. It also ensures that the service quality of the teachers remains high, which has a positive impact on the reputation of VET schools, which in turn improves attractiveness of the profession and potentially reduces shortages.

Cedefop (2022) identifies three main types of CPD, targeting: technical or subject-specific, pedagogical, and transversal skills. Additionally, given the EU policy agenda's emphasis on the twin digital and green transitions and on promoting inclusion, several countries have introduced CPD focuses on these areas.

3.2.1. CPD in technical, pedagogical, and transversal skills

Several MS, such as [Estonia](#) (since 2023), [Ireland](#) (since 2017), [Lithuania](#) (since 2017), and [Romania](#) (since 2015), have developed broad policies aimed at developing and/or strengthening a CPD system for teachers. These address CPD in technical and pedagogical skills and range from establishing a national CPD centre offering courses (Romania) to supporting capacity building in CPD for individual institutions (Estonia, Lithuania) to allocating specific funding channels for CPD (Ireland) (Cedefop & ReferNet, 2025c).

Some CPD measures specifically target areas of shortage or changing labour market needs to assist VET teachers in adapting to the future. [Belgium \(Flemish Community\)](#) initiative 'InnoVET' funds projects to innovate in VET provision, including sector-specific CPD for teachers and administrators. The initiative has been operating since 2019 and has supported 51 projects to date. Many of these projects focus on areas of skill shortage for both teachers and learners, such as ICT and STEM (Cedefop & ReferNet, 2025c; Flemish Ministry of Education and Training, n.d.).

[Spain](#) has also addressed sector-specific needs by establishing 25 national reference centres (CRNs). Since 2017, these centres have implemented innovation initiatives in VET, including the provision of relevant training for VET teachers (Cedefop & ReferNet, 2025c).

3.2.2. Skills for the digital transition

Nearly all countries are prioritising digital competences in VET teacher education. Tools such as DigComp self-assessments are being linked to micro-credentials and open badges. Some countries, such as Austria, Belgium (Flemish and French communities), Spain, Hungary, and Sweden are piloting the use of AI-powered tools and extended reality (XR) applications for immersive training (Psifidou & Symeonidis, 2025).

Some countries, e.g. [Greece](#) (since 2024), [Italy](#) (since 2016), and [Portugal](#) (since 2022), have broader initiatives on digital education, which include a professional development component for educators. These aim to strengthen the competences of teachers with regards to ICT skills and current topics, such as Artificial Intelligence (AI) and cybersecurity (Cedefop & ReferNet, 2025).

Other countries specifically and solely address digital skills for educators, such as [Cyprus's](#) 'digital competences development for educators (DCDE)'. Developed in 2020 in alignment with European and national education goals, the programme has been running at full scale since 2022 as a 10-module distance-learning course. Similarly, [Belgium \(French Community\)](#) (since 2019), [Spain](#) (since 2019), and [Hungary](#) (since 2017) have supported the creation of digital resource

hubs where teachers can share learning resources and exchange good practices. By 2024, the Hungarian platform e-KRÉTA had nearly 20 000 teachers as registered users (Cedefop & ReferNet, 2025).

Innovations in digital technology, including AI and extended reality (XR), are also addressed in national VET policies. [Spain's](#) School of computational thinking ran from 2018 to 2022 and helped teachers incorporate programming into their VET curricula, while the [Belgium \(Flemish Community\)](#) government has recently freed up additional financial resources for the 2025-2029 period to expand its action plan extended reality, which helps teachers implement XR tools in their classroom (Cedefop & ReferNet, 2025c).

3.2.3. Skills for the green transition

In parallel with the digital transition, many countries are addressing the green transition by incorporating sustainability into CPD for VET teachers. [Austria](#) (since 2021) and [Slovenia](#) (since 2022) have addressed this by promoting teacher education in green skills, such as sustainable development and green technologies. [France](#) has also extended training programmes to address sustainability priorities since 2019. [Finland](#) has established a comprehensive green transition plan for their VET system, which includes sector-specific competence building seminars for VET teachers led by industry experts (Cedefop & ReferNet, 2025c).

3.2.4. Skills for inclusion

As school- and work-based learning environments increasingly consist of heterogeneous learner populations, including due to intra-EU mobility and international migration, VET teachers should be equipped to respond quickly and flexibly to emerging needs, promote inclusion, and apply effective pedagogical approaches to support displaced learners, learners with diverse abilities and cultural backgrounds, and those with learning difficulties (Cedefop, 2024b).

[Poland](#), for example, has also strengthened inclusive school-to-work transitions preparing teachers and careers counsellors to support students, including those with disabilities, with tailored guidance, employer engagement and innovative, nationwide, school-based activities. [Lithuania](#) has strengthened inclusive VET provision by establishing a national ESF-funded CPD system for vocational teachers and adult educators, enhancing pedagogical competences and capacity to support learners with special needs through adapted teaching methods and materials. [Estonia](#) plans teacher-training measures with a focus on special education needs (SEN) students and on supporting students' mental well-being. The Intercultural competences for trainers initiative in [Germany](#) helps trainers work effectively with refugees and newly arrived migrants in diverse

environments and facilitates networking with other actors, including an online resource platform.

3.3. Career development and retention measures

In addition to recruiting new teachers, countries have also made an effort to retain and promote their existing teaching force. In addition to CPD, as previously discussed, policy measures in this category address issues such as mobility and career growth, salary and working conditions, and motivation.

3.3.1. Mobility and growth

[Latvia](#), in collaboration with the other Baltic States, has aimed to improve the attractiveness of VET education and instruction through internationalisation. While this measure primarily concerns learners' mobility, it also facilitates the exchange and mobility of tutors across the Baltic States since 2015. [Malta](#) has recently encouraged company placements for teaching staff in vocational education, both through independent/personal means and via Erasmus+ programmes. [Spain](#) has also provided for VET instructor mobility, first through multinational company placement, and from 2023 through an international exchange where Spanish teachers are hosted by a foreign VET centre for study and observation (Cedefop & ReferNet, 2025c).

These programmes facilitate professional development and encourage motivation and collaboration among VET teachers, thereby improving job commitment. For example, an Estonian report on Erasmus+ VET staff mobility found that 89 % of respondents reported increased work motivation and greater adaptability in a rapidly changing world (Erasmus+ & European Solidarity Corps Agency, 2024).

3.3.2. Fair pay and working conditions

Few policies specifically target fair pay for VET teachers, with most addressing the issue indirectly through broader system reforms. However, [Slovakia](#) introduced a measure in 2016 specifically addressing teacher wages, though its implementation has faced significant challenges. [France](#) has also implemented a series of measures since 2020 aimed at raising teacher pay, improving human resource management practices, and facilitating international mobility. [Spain](#) has recently permitted VET teachers to apply to enter the secondary education teacher pool, thereby improving working conditions and salaries. These measures specifically addressed the attractiveness of junior- and mid-career teaching roles to retain employees (Cedefop & ReferNet, 2025c).

3.3.3. Recognition of excellent performance

Finally, some MS have taken a more creative approach in incentivising and retaining teachers by awarding excellent performance. [Belgium's \(French Community\) Pact for Excellence in Education](#) includes the recognition of professional excellence for VET teachers in a broader reform agenda. At the individual level, [Poland's](#) Ministry of Education and Science developed a competition recognising excellent VET educators in collaboration with a private sponsor in 2022. 537 VET teachers in 62 fields were nominated, with 118 winners earning a diploma and a gift voucher for an electronics store. The aim of the competition was to honour teachers for their achievements and to identify role models and good practices in the field.

CHAPTER 4.

Country examples

This chapter contains two country examples of measures to tackle teacher shortages in VET, attracting side entrants in Germany and addressing attractiveness of and retention in teaching in France.

4.1. **Germany: attracting side entrants to the teaching profession**

4.1.1 **Challenge and context**

Germany has faced persistent and growing teacher shortages, including in VET and STEM subjects. Estimates by the Standing Conference of Ministers of Education and Cultural Affairs (KMK) indicate a shortage of around 25 000 teachers in 2025 and about 31 000 in 2030. Other model calculations cited by the Standing Scientific Commission (SWK) suggest substantially higher gaps, up to 85 000 by 2030 and around 156 000 by 2035 (Ständige Wissenschaftliche Kommission, 2023). Shortages are particularly relevant for vocational schools and technical fields. Recent national data indicate that vocational schools rely on teachers without a recognised teaching examination more than general schools. In 2023/2024, Destatis reports that 16.6 % of teachers at vocational schools lacked a recognised teaching examination, compared to 10.5 % at general schools (Statistisches Bundesamt (Destatis), 2024).

To stabilise teacher supply, federal states (Länder) open additional entry routes into teaching for applicants with relevant subject qualifications but without 'traditional' teacher training, combined with a structured in-service qualification, varying by state and pathway (Cedefop & ReferNet, 2025b). Education policy and teacher recruitment are largely regulated at the federal state level but are coordinated through KMK frameworks. A KMK decision in 2013 enabled 'special measures' to recruit teachers where needs cannot be met through the standard two-phase teacher education pathway - university studies followed by preparatory service. Subsequently, all federal states introduced measures in line with the KMK approach.

4.1.2 **What the measure does**

North Rhine-Westphalia (NRW) illustrates how a German federal state applies side-entry pathways specifically to VET, through vocational colleges

(*Berufskollegs*). Where VET colleges cannot recruit fully trained VET teachers, they are allowed to recruit applicants with a relevant non-teaching higher education degree, e.g. engineering, health, or social fields. Entry is conditional on participation in an in-service pedagogical qualification, ensuring an introduction to teaching and didactics while in employment. There are several routes:

- (a) work-based preparatory service (OBAS): typically 24 months, combining employment at a VET school with pedagogical training and concluding with a state examination, leading to a qualification comparable to that of traditionally trained VET teachers (Ministry of Schools and Further Education of the State of North Rhine-Westphalia, 2009);
- (b) pedagogical introduction (*Pädagogische Einführung*): a shorter, approximately 12-month induction route allowing teaching in VET schools while acquiring basic pedagogical competences, without full equivalence to standard teacher training (Ministry of Schools and Further Education of the State of North Rhine-Westphalia, n.d.);
- (c) dual or part-time Master routes for vocational colleges: aimed at candidates with a bachelor's degree in selected technical fields, e.g. mechanical or electrical engineering, combining higher education study with teaching practice in VET settings.

NRW's side-entry approach targets VET fields with acute shortages, notably machine technology, electrical engineering, social pedagogy, and health. Regional authorities describe OBAS and related routes as enabling professionals with occupational expertise to obtain a recognised teaching qualification. Eligibility criteria typically include a relevant higher education degree and prior occupational experience.

4.1.3 Scale and evidence of uptake

National data on side entry must be interpreted with caution due to differing Länder definitions. Based on KMK administrative data, 4 367 of 34 281 teachers recruited in 2017/2018 entered via side-entry routes (12.7 % of all teachers recruited), with large differences between federal states (Klemm, 2019). More recent reporting drawing on KMK-referenced figures indicates about the same number: in 2024, around 4 000 of 32 000 new hires (13 %) entered teaching without a teaching degree. However, these snapshots refer to teacher recruitment overall, not VET only, and should not be read as impact measurements because stable shares may reflect rising overall demand and the role of side entry as one instrument among several.

Hence, evidence on the quality and effectiveness of different side-entry models remains mixed, partly because pathways vary and are not always

evaluated. SWK notes that alternative routes often differ substantially from standard teacher education and can be implemented with little or no university involvement, raising concerns about pedagogical and didactic preparation. SWK also recommended a systematic inventory, evaluation, and further development of side-entry models (Ständige Wissenschaftliche Kommission, 2023).

In June 2024, the KMK agreed on additional routes into teaching, opening access to new target groups, such as single-subject teachers (*Ein-Fach-Lehrkräfte*) and graduates of dual study programmes.

4.2 France: addressing attractiveness and retention of teachers

4.2.1 Challenge and context

Persistent teacher shortages and low attractiveness of the profession have been long-standing concerns in France. Declining applicant pools for competitive exams, stagnant mid-career salary progression, and growing gaps between recruitment needs and available qualified staff are among the concern-causing issues. Analysis by the Haut-Commissariat à la Stratégie et au Plan (High Commission for Strategy and Planning) characterises the issue as a structural crisis of attractiveness, with notable shortages across schools, colleges, and lycées and long-standing challenges in retaining experienced teachers (Haut-Commissariat à la Stratégie et au Plan, 2025).

In this context, the French government launched a broad consultation and reform agenda focused on revalorising the teaching profession. Starting with a national consultation on teacher pay and working conditions in 2022, the aim was to improve professional recognition, career progression, and working conditions of teachers (Haut-Commissariat à la Stratégie et au Plan, 2025).

4.2.2 What the measure does

The measure combines different financial, career, and working-condition measures.

For the school year 2023/2024, the education ministry introduced a substantial and unconditional pay increase for all teachers, alongside targeted early-career bonuses. These measures were not linked to performance criteria but aimed at improving baseline remuneration and retention, particularly in early and mid-career stages. Career prospects are strengthened mainly through earlier pay progression, expanded access to diploma-based CPD and the introduction of

formally recognised and remunerated complementary roles, rather than through accelerated promotion (French Ministry of National Education, 2023b).

The 12-measure reform for vocational *lycées* (lyceums) aims to make VET more attractive both for students and for teaching staff by creating better working conditions, enhanced pedagogical support and specific incentives (French Ministry of National Education, 2026). Measures include enabling teachers to take on voluntary, remunerated additional tasks that support student success, aligning professional missions with compensation, and offering initiatives such as *pacte enseignant* (teachers' pact) (French Ministry of National Education, 2023a).

4.2.3 Scale and evidence of uptake

Salary revalorisation measures, including the *prime d'attractivité* (teacher recruitment bonus) and unconditional pay increases from the 2023/2024 school year, apply to a large proportion of teachers, particularly in early and mid-career stages that are critical for retention. The teachers' pact has also seen solid participation, with around 30 % of teachers taking up voluntary, remunerated additional roles in its first year of implementation (Cedefop & ReferNet, 2025a).

In terms of effectiveness, only indirect indicators are currently available, and these relate to the education system as a whole rather than VET specifically ⁽¹⁾. For example, unfilled posts in national recruitment competitions point to ongoing recruitment difficulties in several teaching categories including technical subjects (Prati, 2025, January 9).

(¹) France does not publish a dedicated, regularly updated statistical series tracking teacher shortages or vacancy rates disaggregated by subsystem, such as VET. Official statistical sources do not allow for year-on-year assessment of changes in unmet staffing needs or attribution of trends to specific policy measures.

CHAPTER 5.

Conclusions and policy pointers

5.1 What the evidence shows

VET teacher shortages are a widespread and persistent challenge across Europe, with intensity varying across countries and sectors. Common dynamics underpin this trend: an ageing workforce and a weak supply of new entrants point to growing replacement needs. Evidence also suggests that shortages are not only a recruitment issue but also a retention problem and a challenge for long-term workforce stability. The perceived attractiveness of the VET teaching career is shaped by working conditions, access to relevant CPD, the time and support available to teach increasingly diverse learner groups, and the feasibility of implementing competence-based curricula in practice. These factors affect well-being, job satisfaction, and turnover, reinforcing shortages over time.

Policy responses reported in Cedefop's [Timeline of VET policies in Europe](#) (Cedefop & ReferNet, 2025c) indicate that countries are acting, but approaches remain uneven and often fragmented: measures are frequently introduced as stand-alone initiatives, such as reforms to entry routes, isolated CPD programmes or short-term financial incentives, without being embedded in a coherent, long-term strategy for VET teacher careers and professional development.

Measures cluster around entry pathways to the teaching profession (including reforms to ITE and facilitated entry from industry); CPD expansion and modernisation, the most common response; and retention and career measures (pay, working conditions, recognition, mobility), but links between them are often weak. As a result, policies addressing immediate shortages are not always aligned with measures aimed at improving career progression, working conditions, or long-term retention. Country examples illustrate both the potential and limitations of current approaches. Germany's side-entry pathways help stabilise supply, but pathways vary in quality and evaluation remains limited. France's broad 'attractiveness' package shows strong uptake, yet evidence remains insufficient to demonstrate effects on shortages.

Finally, monitoring gaps remain a major constraint. Comparable data on teacher recruitment, CPD participation, working conditions, and shortages are limited, making it difficult to assess what works and under which conditions. The forthcoming Cedefop's EVTS is therefore critical for strengthening the evidence base.

5.2 Policy pointers

The analysis points to a set of policy priorities that can help countries move towards more sustainable solutions to VET teacher shortages:

Improve career attractiveness through clearer progression, recognition and improved working conditions: Measures on pay and working conditions respond directly to the ‘attractiveness’ challenges highlighted in the evidence. In addition, opportunities for mobility and formal recognition can enhance attractiveness by offering professional variety, skill development, and visible career pathways beyond classroom teaching. Mobility schemes (such as exchanges, company placements, or international experiences) can raise attractiveness, while recognition measures (awards, specialist roles, or validated responsibilities) acknowledge teachers’ expertise and contributions. Policies that combine financial incentives with career development opportunities (such as specialist roles, mentoring, pedagogical leadership, or company placements) can strengthen motivation and retention, particularly for early- and mid-career teachers.

Treat shortages as a combined recruitment - retention challenge. Policies that only expand entry routes are unlikely to succeed unless paired with measures that improve the sustainability of the job, such as working conditions, support, time for preparation, mentoring, and professional autonomy. Linking teacher shortage policies to wellbeing and broader workforce sustainability can help address burnout and early-career attrition, which undermine system capacity.

Strengthen the quality and coherence of alternative entry routes. Side-entry and hybrid teaching models can increase supply and bring up-to-date occupational expertise into VET. However, they require clear standards for pedagogical preparation, structured induction, and ongoing support to avoid trading short-term solutions for longer-term quality risks. A priority for future work is to identify design features that make alternative routes both scalable and credible (e.g., minimum pedagogical training requirements, mentoring, supervised practice, and progression to a recognised teaching qualification).

Make CPD more targeted, accessible, and tied to real teaching demands. CPD is the most widespread response, but effectiveness depends on relevance and conditions for participation. In addition to ongoing professional development, structured induction and early-career support are important for preventing early attrition among novice teachers, particularly in VET fields with high pedagogical and occupational demands. Promising directions include reserved time for CPD; school- and sector-based training linked to curriculum change; and practice-oriented support for implementing competence-based approaches, digital tools (including AI/XR) and green skills. CPD that strengthens teachers’ capacity to work

with diverse learners can also support inclusion objectives and reduce workload stressors.

Invest in monitoring, evaluation, and comparability of data on VET teachers. A key priority is to strengthen the evidence base on VET teachers' recruitment, working conditions, career trajectories, and participation in CPD. More systematic data are needed on teachers' professional development needs, participation rates in different CPD formats, barriers to participation, digital and pedagogical competence gaps, mobility patterns, attrition rates, and transitions between labour market and teaching. The forthcoming EVTS, the first European systematic survey focused on the professional development and working conditions of teachers in initial VET schools, is an important step towards addressing these gaps and furnishing robust representative data. However, it should be complemented by strengthened national data collection and more systematic evaluation of reform outcomes.

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Policy approaches to tackle VET teacher shortages in the EU

Teacher shortages in vocational education and training (VET) have been growing across Europe, driven by an ageing workforce, low numbers of new entrants to the profession, and unattractiveness of the teaching career. Not only are these shortages quantitative, but also qualitative, as many teachers lack opportunities to keep their technical and pedagogical competences up to date. Countries are responding with reforms to initial teacher education, more flexible side entry pathways, expanded continuing professional development, and measures to improve retention and career attractiveness.

Cedefop's European Vocational Teacher Survey (EVTS) plays a key role in addressing persistent evidence gaps by providing harmonised data to support more coherent policy design. Examples from Germany and France illustrate different national approaches to tackling teacher shortages. Strengthening data systems, ensuring coherent career pathways, and aligning recruitment and retention strategies remain essential to sustaining the VET teaching workforce.



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