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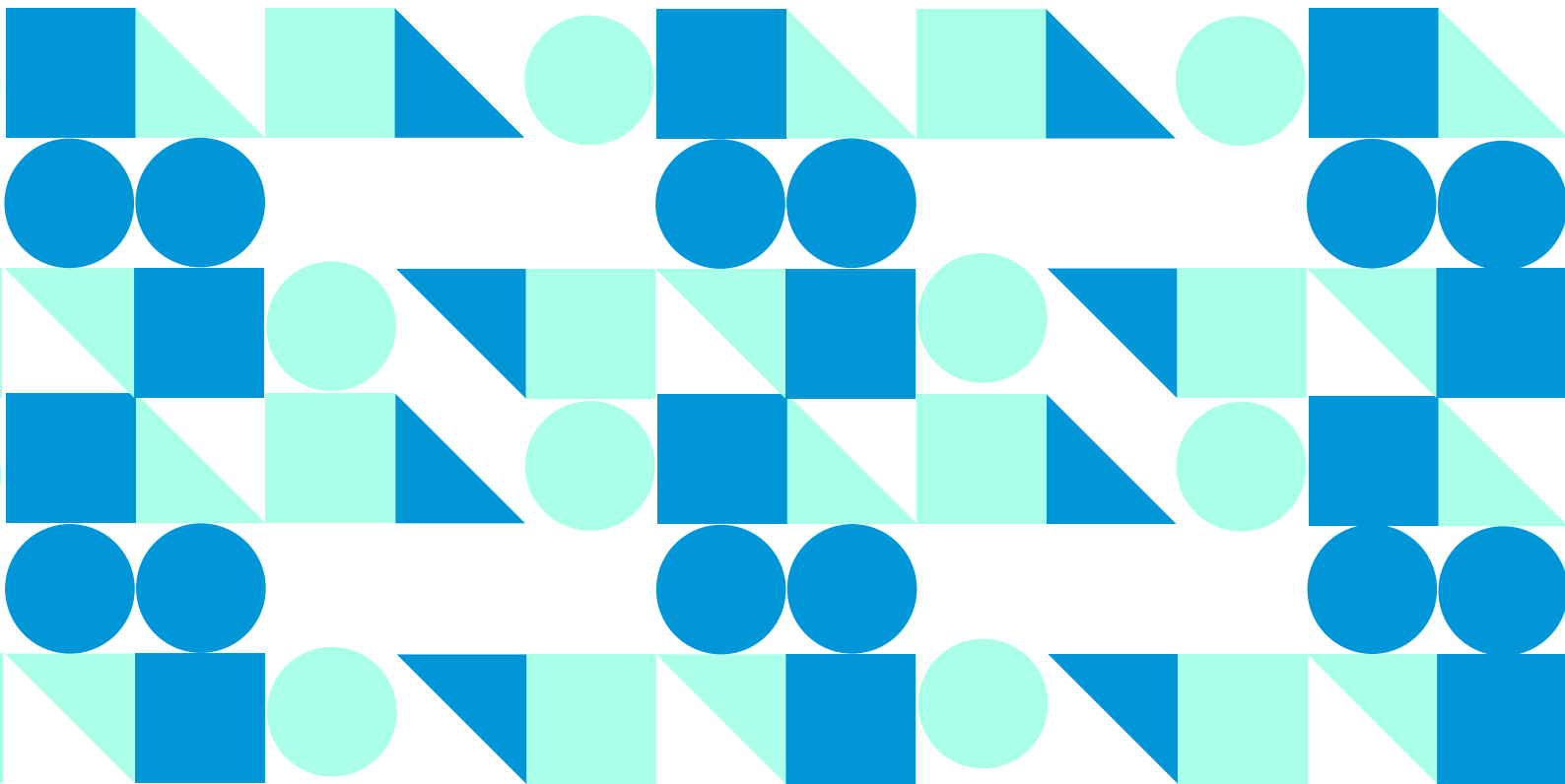
Research paper

The influence of learning outcomes-based curricula on teaching practices



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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 This decision was repealed in 2019 by Regulation (EU) 2019/128 establishing Cedefop as a European Union agency with a renewed mandate.

Europe 123, Thessaloniki (Pylaia), Greece
Postal: Cedefop service post, 57001 Thermi, Greece
Tel. +30 2310490111, fax +30 2310490020
Email: info@cedefop.europa.eu
www.cedefop.europa.eu

Jürgen Siebel, *Executive Director*
Mario Patuzzi, *Chair of the Management Board*

Foreword

This publication was prepared as part of the Cedefop project 'The shift to learning outcomes: Rhetoric or reality?' The purpose of this research is to analyse the conceptual, structural and political factors influencing the transformation of intended into achieved learning outcomes. It is considered a first step in a long-term research strategy aiming to better understand the conditions for high-quality vocational education, training and learning. The research focuses on initial vocational education and training (VET), in schools and apprenticeships, in the 27 Member States of the EU, as well as Iceland and Norway.

The research is divided into five separate but interlinked themes:

(a) addressing the influence of learning outcomes on pedagogical theory and tools;

(b) focusing on the influence of learning-outcomes-based curricula on teaching practices (in school-based programmes);

(c) examining the influence of learning-outcomes-based curricula in company training (the part of apprenticeship programmes that takes place in companies);

(d) mapping and analysing the influence of learning outcomes on assessment;

(e) developing suggestions for the future by supporting stakeholders and policymakers in addressing future challenges and opportunities in this area.

This publication aims to explore whether and how learning-outcomes-based approaches are employed in teaching practices at VET schools. The study conducts a comprehensive assessment at the micro, meso and macro levels and bases its analysis on the survey and case study findings from 10 selected countries.

The study reveals that, in most of the countries studied, there is a perceived lack of resources and training in the use of learning outcomes. This is seen as a barrier to further implementing learning-outcomes-based approach in VET. When examining students' perspectives on learning outcomes, case studies show that they tend to lose sight of them over time and prioritise reaching the minimum passing score in exams. Nevertheless, students express overall satisfaction with the teaching and learning methods associated with the learning-outcomes-based approach. They see these methods as engaging, linking theory to practice and granting them autonomy in leading their learning process. As indicated by school managers and teachers in most country case studies, learning outcomes facilitate

differentiation between learning environments, in relation to either work-based learning in companies or simulated workplaces within VET schools.

Overall, the report shows that the implementation of learning-outcomes-based approaches is a substantial process of transformation within VET, encompassing all levels of stakeholders within the system. We hope this publication and the forthcoming ones can serve as a reference point for continuous cooperation and exchange that could take forward both learning outcomes and the key role they play, not only in the dialogue between education and training and the world of work, but also in the transformation of learning intentions – articulated through curricula or programmes – into actual teaching and assessment practices.

Jürgen Siebel

Executive Director and Acting
Head of Department for
VET and qualifications

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The research was carried out by a consortium led by PPMI Group, UAB (Lithuania), coordinated by Mariia Kolokolova, Donatas Pocius and Milda Venckutė-Jakštė. The consortium includes 3s Research and Consulting (Austria), Ockham IPS (Netherlands) and, as subcontractors, the European Institute of Education and Social Policy (France), INOVA+ (Portugal), Tomaž Deželan (Slovenia), Suzanne Gatt (Malta), Jouko Luomi (Finland) and Andrew McCoshan (Ireland).

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Vasileios Symeonidis, Cedefop expert, peer-reviewed the publication. We would also like to thank Christopher James Lee, Cedefop trainee, for his comments and support throughout the preparation of this publication.

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Background and methodology

Learning outcomes are understood as statements of what learners know, understand and are able to do at the end of a learning process. The shift to a learning-outcomes-based approach is associated with several key changes in teaching and learning. Teachers transition from being instructors to being facilitators of learning, while students take more responsibility for planning and monitoring their own learning process. This approach emphasises teacher collaboration and curriculum integration, places a greater focus on developing skills and competencies, and increasingly applies experiential and active learning methods. This publication aims to explore whether and how learning-outcomes-based approaches are employed in teaching practices at vocational education and training (VET) schools. Hence, the publication aims to answer these key questions.

(a) How – and to what extent – are teaching practices, in the cases covered by the study, being influenced by learning-outcomes-based approaches?
(b) To what extent is applying learning outcomes the responsibility of individual teachers rather than the institution?
(c) How are different teaching (and learning) environments, including online and hybrid environments, influencing the application of learning outcomes?
(d) What implication does the shift to learning outcomes have for resources?
(e) How are different ways of formulating learning outcomes influencing the tensions in teaching practices:
    (i) precision and prescription versus vagueness and openness;
    (ii) central steering versus individual and institutional autonomy/adaptation?
(f) To what extent are students aware of the learning-outcomes-based requirements?

This publication summarises the second strand of the study 'The shift to learning outcomes: Rhetoric or reality?' It follows a report on the first theme, which focused on the impact of learning outcomes on pedagogical theory and teacher-training tools. There will be three subsequent reports, with the third strand analysing the influence of learning outcomes on work-based learning and the fourth focusing on assessment in VET schools. The fifth and final strand will bring together findings from all previous parts of the study to provide guidance for stakeholders and policymakers on future challenges and opportunities.

Key findings

The adoption of a learning-outcomes-based approach has brought about major changes within VET, which can be differently supported by national and regional policymakers, VET schools, VET teachers and VET learners. The study conducts a comprehensive assessment analysis at the micro, meso and macro levels and bases this analysis on the survey and case study findings from 10 selected countries. The macro level refers to national/regional rules, regulations and policy discourse around learning outcomes; the meso level centres on institutional context and practice (i.e. delivery of VET programmes in schools); and the micro level focuses on how individuals like teachers, trainers, assessors and learners perceive and apply learning outcomes in their daily practice.

At the macro level, learning outcomes are firmly embedded in most of the countries studied, while in a few they are still advancing and streamlining. The former particularly applies to countries that adopted learning outcomes in the early 2000s, establishing systems where learning outcomes serve as the implicit foundations of VET delivery. Moving to the meso level, only 3 out of 10 countries studied (Ireland, the Netherlands, Finland) have truly embraced learning-outcomes-based approaches at the VET school level. At the classroom level, six of the countries studied demonstrate strong integration of learning outcomes, highlighting their impact on teaching and learning practices. However, a gap exists between classroom practices and the broader VET school environment. This suggests that, while teachers may use learner-centred approaches in their initial teacher training, there is a lack of national guidance and training on effectively supporting the implementation of learning outcomes in schools.

The study reveals that, in most countries studied, there is a perceived lack of resources and training in the use of learning outcomes. This is seen as a barrier to further implementing learning-outcomes-based approach in VET. Around half of the teachers surveyed in this study were found not to have been explicitly trained in how to teach learning-outcomes-based curricula, despite their teacher education potentially covering learner-centred teaching and assessment methods. Moreover, around 40 % of teachers lack continuing professional development opportunities related to learning outcomes, resulting in a significant gap in the implementation of learning-outcomes-based approaches in VET systems and a slower shift towards pedagogies based on learning-outcomes-based approaches.

Regarding the learning environment, the study reveals that VET schools utilise a variety of learning environments to enhance the learning experience and make it more engaging. As indicated by school managers and teachers in most of the country case studies, learning outcomes facilitate differentiation between these

environments, particularly regarding work-based learning in companies or simulated workplaces within VET schools.

The study shows that the utilisation of learning outcomes in VET schools and by teachers hinges on the degree of autonomy they possess in delivering VET. While such autonomy can facilitate effective use of learning outcomes, a lack of guidance and support at the national level for VET schools may hinder their full integration. In addition, the language used to describe learning outcomes plays a crucial role in shaping the relationship between VET schools and employers. As evidenced in a few country cases, the language remains bureaucratic and technocratic rather than being tailored for practical communication with employers, thus presenting a challenge to effective communication between these stakeholders.

When examining students' perspectives on learning outcomes, case studies show that, although students are initially introduced to learning outcomes at the start of their studies, they tend to lose sight of them over time and prioritise reaching the minimum passing score in exams. Nevertheless, students express overall satisfaction with the teaching and learning methods associated with learning-outcomes-based approaches. They perceive these methods as engaging, linking theory to practice and granting them autonomy in leading their learning process.

To conclude, the report shows that the implementation of learning-outcomes-based approaches is a substantial process of transformation within VET, encompassing all levels of stakeholders within the system. The insights shared in this and forthcoming publications can serve as a reference point for continuous cooperation and exchange that could take forward both learning outcomes and their key role in the transformation of intentions into teaching and learning processes.

Chapter 1. Introduction

This publication aims to explore the influence of learning outcomes on teaching practice in vocational education and training (VET) in selected countries. Learning outcomes are understood as 'statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competence' (European Parliament & Council of the European Union, 2008, Annex I(f)). While this definition captures the core function of learning outcomes, their role extends beyond such statements. Learning outcomes have gained significant policy prominence, particularly through qualification frameworks, but their impact and application encompass a broader range of educational practices and reforms. Learning-outcomes-based approaches signifies a comprehensive shift in VET, affecting governance, teaching, learning and assessment methods. This approach supports a move towards demand-driven, output-oriented and learner-centred education and training (Adamson & Morris, 2007; Frommberger & Krichewsky, 2012; Kinta, 2013; Sloane & Dilger, 2005).

Specifically, learning-outcomes-based approaches are associated with such principles as teachers becoming facilitators of active learning rather than instructors of learning (Frommberger & Krichewsky, 2012), learners taking an active role in the planning of their own learning and monitoring of progress (Adam, 2006), increased emphasis on teacher collaboration and integration of the curriculum (Frommberger & Krichewsky, 2012; NCCA, 2019), greater focus on skills and competences (rather than knowledge), mixing theory and practice, and applying experiential and active learning approaches (Cedefop, 2012; Frommberger & Krichewsky, 2012). This publication analyses whether and how these and other principles linked with learning-outcomes-based approaches are used in teaching and learning in VET. Table 3 (see Annex 1 to this report) operationalises the definition of learning-outcomes-based approaches through their specific implications in VET.

In this context, it is critical to provide an overview of the educational policy framework that shapes teaching and learning in VET in the countries studied. This concerns how learning outcomes are set and defined at the national level, what autonomy VET providers and teachers have to revise them and choose preferred teaching and learning approaches and, finally, what guidance and resources are made available to VET providers and teachers to facilitate the delivery of a learning-outcomes-based VET curriculum. Yet simply having learning outcomes in

education plans and teacher-training programmes does not guarantee their implementation in the classroom. Therefore, this study goes beyond examining formal policies and arrangements and looks into the perspectives and practices of VET providers and teachers. The latter includes aspects such as how VET providers and teachers interpret and adapt learning outcomes defined at the national level, how they use learning outcomes to prepare, plan and deliver teaching and facilitate learning, and, finally, what support they receive in delivering learning-outcomes-based curricula at the national/regional and school levels. Together, these perspectives help reveal to what extent the initial articulation of intended learning outcomes influences teaching practice in VET and what enables or hinders the use of learning-outcomes-based curricula.

The focus of this publication is on the roles, perspectives and practices of VET teachers. They include individuals who teach general or vocational, practical or theoretical subjects within VET programmes in school settings and work at the secondary and post-secondary non-tertiary levels (i.e. International Standard Classification of Education 3–4, European qualifications framework (EQF) 3–4). VET teachers are not to be confused with VET trainers: mentors, tutors and instructors who work with VET students (e.g. interns, apprentices) in workplaces. Whenever this report refers to teachers it means professionals who work at vocational schools. The use of learning outcomes in company training will be explored in more detail in the third strand of the study and is not a subject of the current publication. This publication aims to answer these key research questions.

(a) How – and to what extent – are teaching practices, in the cases covered by the study, being influenced by learning-outcomes-based approaches?
(b) To what extent is applying learning outcomes the responsibility of individual teachers rather than the institution?
(c) How are different teaching (and learning) environments, including online and hybrid, influencing the application of learning outcomes?
(d) What implication does the shift to learning outcomes have for resources?
(e) How are different ways of formulating learning outcomes influencing the tensions in teaching practices:
    (i) precision and prescription versus vagueness and openness;
    (ii) central steering versus individual and institutional autonomy/adaptation?
(f) To what extent are students aware of the learning-outcomes-based requirements?

In Chapter 2, Cedefop's research work on learning outcomes is described. An overview of the research background, analytical approach and methodology of the second strand of this study is presented in Chapter 3. This is followed by the

discussion of the main fieldwork results, comparing the findings across 10 selected countries as regards policy and administrative arrangements in Chapter 4, perspectives and practices of VET providers in Chapter 5, perspectives and practices of VET teachers in Chapter 6, perspectives and experiences of learners in Chapter 7 and success factors and barriers in Chapter 8, all in relation to learning-outcomes-based approaches. The publication concludes by providing answers to research questions and an assessment of the state of play across the 10 countries studied, in Chapter 9.

Chapter 2.
Setting the scene

Learning-outcomes-based approaches have been systematically promoted at the EU level since 2004. Some of the key policy documents that have introduced learning outcomes as a tool to standardise VET and enhance its transparency, quality and relevance include the recommendation on the European qualifications framework for lifelong learning (European Parliament & Council of the European Union, 2008; revised by Council of the European Union, 2017); the recommendation on the establishment of a European credit system for VET (ECVET) (European Parliament & Council of the European Union, 2009); the Bruges communiqué (2010); the European skills agenda (European Commission, 2020); and the Osnabrück Declaration (2020). As a result, almost all EU Member States are now actively using learning outcomes (or competence) statements to define, review and refine their qualifications, VET curricula and programmes. Over the years, Cedefop has carried out various studies examining the implementation and impact of learning outcomes within European VET systems (Cedefop, 2009, 2010, 2016, 2017, 2021, 2022a, 2022b) ([1]). The studies have explored various aspects, such as the conceptualisation of learning outcomes (Cedefop, 2009), their integration into VET curricula (Cedefop, 2010), differences in their application across countries (Cedefop, 2016) and practical guidelines for defining and utilising learning outcomes effectively (Cedefop, 2017, 2022b).

However, despite the extensive research and guidance provided by these reports, there remained a significant gap in understanding the actual influence of learning outcomes on teaching, learning and assessment practices in VET settings. While the reports shed light on the adoption and theoretical underpinnings of learning outcomes, they did not delve deeply into how these outcomes manifest in real-world educational contexts and what factors influence their successful implementation.

Therefore, the current study seeks to bridge this gap by investigating the transformation of intended learning outcomes into achieved outcomes within initial VET settings, including schools and apprenticeships. It aims to map the factors that shape this transformation process, thereby providing insights into the practical implications of learning outcomes in VET. This study is designed to offer a more nuanced understanding of the challenges and opportunities associated with

([1]) Cedefop publications on learning outcomes.

implementing learning outcomes in VET, building upon the foundation laid by previous research conducted by Cedefop and others.

Ten countries were selected for in-depth analysis: Bulgaria, Ireland, France, Lithuania, Malta, the Netherlands, Poland, Portugal, Slovenia and Finland. This selection helps to ensure sufficient geographical, institutional and thematic variety among the cases.

The study covers four distinct areas over the course of three years:

(a) the influence of learning outcomes on mainstream pedagogical theory and training of VET teachers and trainers, that is, how a learning-outcomes-based approach is addressed and embedded in, and aligns with, theories that underpin the training of VET teachers and trainers, how the approach is presented to VET teachers and trainers, how that presentation is framed by national policies and administrative arrangements, and how it affects the actual teaching, learning and assessment practice in VET;
(b) the influence of learning-outcomes-based VET curricula on teaching practice in schools, that is, how learning outcomes are used, who is responsible for this, whether such use is influenced by the teaching (and learning) environment, what resources the shift to learning outcomes requires, how different ways of formulating learning outcomes prompt tensions in teaching practice, and whether students are aware of the learning-outcomes-based approach or not;
(c) the influence of learning-outcomes-based curricula on in-company training, including apprenticeships, that is, how externally imposed learning outcomes influence interactions between VET teachers, trainers / company instructors, work colleagues and apprentices, how teachers/trainers/instructors interpret learning outcomes and adapt them to the workplace, and what the overall impact of learning outcomes on workplace learning is;
(d) the influence of learning outcomes on assessment, that is, the relationship between curriculum statements/intentions and assessment processes, how teaching and learning are informed or steered by assessment criteria, the role of learning outcomes in formative and summative assessment, the influence of online and hybrid teaching and learning on assessment, and how complex learning outcomes are assessed.

These comprise four thematic strands of the study, which will be followed by a fifth and final publication, which aims to develop suggestions/lessons for the way forward supporting VET practitioners and policymakers in addressing future challenges and opportunities in this area.

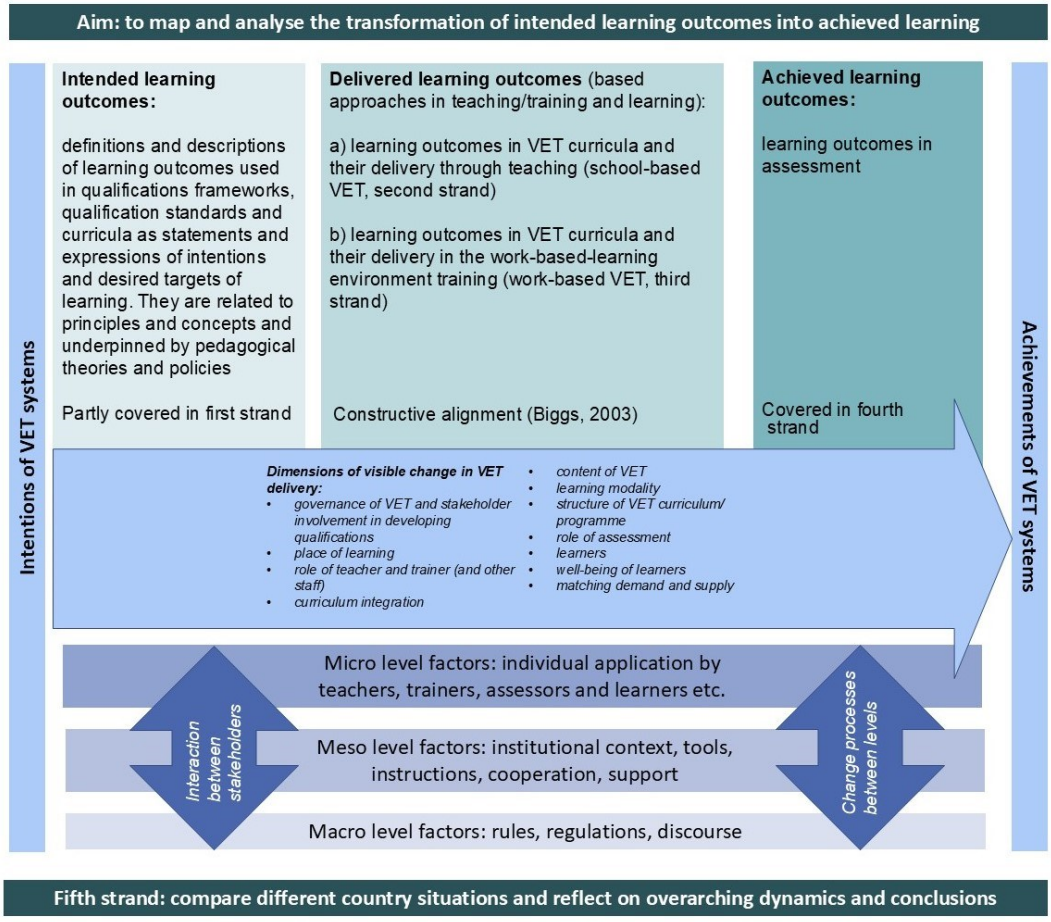
To guide data collection and data analysis across all strands of the study, a detailed analytical framework was developed. It builds on three key perspectives. The first one concerns the logical steps from intended to achieved learning

outcomes. It helps to define learning outcomes and operationalise what the use of them in practice implies. The second perspective maps levels at which actions are (or may be) taken to implement a learning-outcomes-based approach. Each publication builds on three such levels: macro, meso and micro. Finally, the third perspective discusses stakeholders involved and the change processes taking place at these three levels regarding the use of learning outcomes in VET. Each perspective is described in more detail in Annex 1. It lays out the overarching analytical framework of the three-year study 'The shift to learning outcomes: Rhetoric or reality?', of which this publication is a part.

Taken together, the three perspectives help to understand the process of transformation from intentions to achievements. Figure 1 illustrates this. It makes it possible to see the extent to which learning outcomes are applied at each step and each level in individual countries. For instance, learning outcomes may well be embedded in qualification standards and VET curricula, but might not be taken up in teaching, learning or assessment practices. The figure helps to reveal and analyse these complexities.

This publication explores how learning-outcomes-based approaches are used in school-based settings in VET. This is critical for understanding the factors that influence the transformation of intended learning outcomes into achieved ones, as illustrated below, and revealing the extent to which learning outcomes in VET affect teaching practices in Europe.

Figure 1. **Overarching analytical framework of the study**



Source: Authors.

Chapter 3.
Research background and approach

3.1. Research background

The focus on learning outcomes underpins various European transparency efforts and connects important tools developed in recent decades to promote transferability and flexible educational pathways. Learning-outcomes-based approaches reorient education and training systems from what is being taught (input-based education) to what learners are expected to know, be able to do and understand at the end of a learning process (outcomes-based education) (Cedefop, 2022b, p. 18). Well-formulated learning outcomes contribute to transparent agenda setting for students and to the communication of expectations of both content and performance (Faulconer, 2017, p. 32). Learning outcomes are systematically promoted in the EU policy agenda for education, training and employment as a way of connecting diverse initiatives and instruments, vocational and academic programmes.

Over the past two decades, the incorporation of learning outcomes descriptors in VET curricula has become a fundamental principle and a common denominator for characterising VET content in Europe.

However, there are major differences in the quality and granularity of learning outcomes descriptions and in the underlying logic based on which they have been developed (Cedefop, 2022a). Despite the overall progress in promoting learning outcomes, there are still issues related to the description, structuring, articulation and presentation of learning outcomes statements. Although learning-outcomes-based approaches are promoted at the European and national levels, and there is a trend towards describing qualifications in terms of learning outcomes, the extent to which vocational education in schools is embracing these approaches remains unclear. Learning outcomes influence the description and definition of curricula, programmes and qualifications, but the impact of these statements on teaching, learning and assessment is less researched.

Previous studies analysing the shift towards learning-outcomes-based approaches confirm that this shift is happening, but not in the same way and at the same speed in all countries and subsystems. Cedefop (2016) observed that learning outcomes have strengthened their position in VET. A later Cedefop study (2020), which looks at developments in VET from 1995 to 2015, concluded that, while no fundamental system changes occurred in any of the countries analysed, there are several hints of changes related to the application of learning-outcomes-

based approaches. For example, it is stated that common trends can be identified, including moving from more 'input-driven' initial vocational education and training (IVET) in 1995, with rather narrowly defined programmes and qualifications, to learning outcomes orientation in 2015, with more flexibility in time and place of learning and an increased acceptance of prior learning. 'Learning outcomes and mechanisms to validate non-formal and informal learning have been introduced, decoupling what skills are acquired from how they are acquired' (Cedefop, 2020, p. 54). Cedefop (2022b) provides examples of how learning outcomes can be used in different contexts, from situated learning balancing between measurability and flexibility for individual and contextual adaptation (in Germany) to a more teacher-focused approach facilitating more efficient assessment of competence development (in Norway). In this context, the question remains whether the shift to learning outcomes is, in reality, affecting VET delivery or it is merely rhetoric.

As indicated in the introduction (Chapter 1), learning-outcomes-based approaches encompass much more than the mere use of such statements established in qualification frameworks, occupational standards, curricula and VET programmes. While the relationship between the inclusion of learning outcomes in the curriculum and the transition to an entirely learner-centred approach is not fully explored, there is evidence showing they are closely connected. For instance, Frommberger and Krichewsky (2012) illustrate this connection by showing how the conceptualisation of competences in VET curricula ([2]) affects learning arrangements, contributing to interdisciplinarity and project-based learning. In our study, these competence-based approaches are regarded as examples of learning-outcomes-based approaches, as they also illustrate the shift from input to output orientation in VET (which can be found in several countries, including Austria, Finland, Germany, Hungary, Lithuania, Luxembourg, Malta, the Netherlands, Norway and Slovenia) (Cedefop, 2022a, pp. 45–46).

Against this background, and within the overall analytical framework of the entire study, this publication looks at how the initial articulation of intended learning outcomes influences the way teaching is conducted and what the existing challenges and barriers to using learning-outcomes-based curricula in initial VET are.

([2]) *Handlungskompetenz* in Germany, the common basis of competences in France and 'four roles of learners' underpinned by key 'experiences and outcomes' in the Scottish Curriculum for Excellence (see Frommberger & Krichewsky, 2012, p. 14).

3.2. Analytical approach

Sections 3.2.1 and 3.2.2 set out the analytical framework used to collect and analyse data for this publication. The framework is broadly inspired by the overarching analytical approach applied in all strands of the study (Annex 1). It has been tailored to facilitate the analysis of the influence of learning outcomes on teaching practice in VET (school settings), which is the focus of this publication.

The sections below elaborate on two aspects. Section 3.2.1 operationalises learning-outcomes-based approaches and describes signals of their use in teaching practice in VET. Section 3.2.2 reflects on three levels of implementation of learning-outcomes-based approaches: national policy, providers of VET (focusing on schools) and, finally, VET teachers. Together, these three perspectives lay the foundation for data collection and data analysis for this publication.

3.2.1. Signals of learning-outcomes-based approaches being used in teaching practice in VET

As noted in the introduction, at the EU level, learning outcomes are understood as 'statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competence' (European Parliament & Council of the European Union, 2008, Annex I(f)). Yet approaches to education and training based on learning outcomes encompass much more than this and imply a wide range of changes across VET, including governance arrangements designed to ensure that learning outcomes reflect labour market needs through stronger engagement with relevant stakeholders; stronger autonomy of schools in determining how learning outcomes should be implemented to better meet local needs; and pedagogies and assessment methods that enable greater consideration of the diverse needs of individual learners.

In general, learning-outcomes-based approaches are closely linked to more learner-centred and demand-driven approaches in the VET sector (Cedefop, 2010; Frommberger & Krichewsky, 2012). Based on a review of literature on curriculum reforms, demand- and supply-driven curricula (Adamson & Morris, 2007), input- and outcomes-oriented curricula (Sloane & Dilger, 2005) and learner- and teacher-centred curricula (Frommberger & Krichewsky, 2012), the dimensions that signal the use of learning-outcomes-based approaches in VET were identified. Such operationalisation of the use of learning outcomes goes beyond observations that texts are changed in policy documents, textbooks and qualification descriptions (linked to intentions) and tries to identify changes in the delivery of programmes, assessment approaches and learning achievements in terms of what is learned,

how it is learned, where it is learned, who supports learning and what the result of learning supported by a learning-outcomes-based approach is.

The use of a learning-outcomes-based approach in VET has introduced significant changes across various dimensions, enhancing the effectiveness and inclusivity of VET systems. Governance has seen a shift toward greater involvement of labour market stakeholders, who now play a central role in defining learning outcomes that align with industry demands (Stanley, 2015). This collaboration fosters shared responsibility for ensuring that VET programmes meet both educational and labour market expectations, creating a stronger feedback loop between supply of and demand for skilled workers. Flexibility is another hallmark of learning-outcomes-based approaches. Programmes now accommodate diverse learning venues, such as workplaces and online platforms, emphasising that outcomes are independent of the path to achieving them (Frommberger & Krichewsky, 2012). Teachers and trainers are transforming into facilitators, adapting teaching methods and curricula to meet students' immediate needs while encouraging active and self-directed learning. Learners, placed in the centre of the process, take on a more autonomous role, planning their learning journeys and monitoring progress (Adam, 2006; Cedefop, 2022a).

VET curricula have shifted from subject-based structures to outcomes-driven models, integrating theory with practice and placing greater emphasis on skills and competences. This approach also promotes innovative teaching methods, such as project-based and experiential learning, to better prepare learners for real-world challenges. Modular programme structures and flexible assessment methods further support personalised learning pathways and recognition of prior achievements (Frommberger & Krichewsky, 2012).

The introduction of learning-outcomes-based approaches also improves the inclusivity of VET, catering to diverse groups of learners. They benefit from increased transparency and predictability, reducing stress and improving overall well-being (Mahajan & Singh, 2017). By closing the feedback loop between education and employment, learning-outcomes-based VET programmes better equip learners with the skills and competences needed to thrive in the labour market, ensuring a closer match between what is taught and what is demanded (Cedefop, 2021).

For further examination, the signals of learning-outcomes-based approaches are detailed in Table 3 of Annex 1 to this report.

3.2.2. Levels at which actions are taken to implement the learning-outcomes-based approach

The shift to learning outcomes implies a wide range of changes across entire VET systems, including policy, delivery and assessment. To grasp the full scale of these changes, a distinction can be made between three levels: macro, meso and micro.

At the micro level, the focus is on the actual application of learning outcomes, that is, on the ways in which learning-outcomes-based approaches play out at the level of teaching and learning in individual classrooms. The way teachers approach their teaching practice may have an important effect on achieved learning outcomes, while the manner in which learning outcomes are formulated and organised will, in turn, affect teaching practices. In addition, the selection of particular pedagogies/techniques or outcomes-based strategies may affect not only students' perceptions and understanding of their own learning but also the design of education and training programmes.

At the same time, teachers work in the context of schools – the meso level – which can have an impact on achieved learning outcomes. At this level, the focus is on the factors that influence or determine the delivery of VET programmes in schools. This includes, for example, whether there are didactic and pedagogical tools and procedures that refer to applying learning outcomes and whether staff involved in delivery or assessment are trained to use learning outcomes. It also concerns discussions between VET providers and employers, for instance over work-based learning and what the student should learn.

Finally, the macro level concerns those factors that set out national, regional and sector-wide rules and regulations and create conditions in which learning outcomes can be applied and used in general. It is at this level that intended learning outcomes are usually designed and where theories related to teaching and learning are developed and promulgated. Here the focus is on the motives behind the form and function of learning outcomes and associated pedagogies, and how they have been shaped by different stakeholders, and on the extent of autonomy in the VET system, which frames the scope for action at the meso (school) level.

3.3. Methodological approach

This publication builds on a comparative synthesis of 10 in-depth case studies, covering Bulgaria, Ireland, France, Lithuania, Malta, the Netherlands, Poland, Portugal, Slovenia and Finland.

Each included desk research; scoping interviews with key VET stakeholders at the national level; and site visits to VET providers (focusing on schools),

including interviews with school managers, focus groups with VET teachers, lesson observation and focus groups / interviews with VET learners.

The desk research focused on reviewing legal acts, policy and programming documents that define the rules for designing VET curricula in 10 countries (for both school-based and work-based learning). The desk research also helped to gain insights into the level of autonomy that VET teachers and schools have in defining the curriculum, as well as the process of defining learning outcomes. Finally, examples of how specific learning outcomes are formulated within a country's context were analysed (within the frameworks of qualification requirements, occupational standards, national curricula, etc.).

The scoping interviews served two purposes: to secure stakeholder support and involvement at all project stages and to explore macro-level arrangements and the views of authorities and social partners on learning outcomes. In total, 64 scoping interviews were carried out across the 10 countries selected (6 or 7 per country on average; for more details, see Annex 2). The interviews targeted representatives of national/regional authorities in the field of VET that are responsible for or have a say in implementing learning-outcomes-based approaches, such as ministries, local governments, qualification agencies, national VET institutes and curriculum commissions. In addition, social partner organisations, especially those representing employers, and other relevant stakeholders such as VET provider associations, professional organisations for teachers and learner associations were interviewed.

Visits to VET providers (focusing on schools) were organised in each of the 10 countries. The aim was to explore how learning outcomes are used in initial VET at the provider (meso) and teaching (micro) levels. The visits took place between September 2023 and January 2024, with two or three visits conducted in each country. Most visits took one to two days (some even more) and included observation of at least two lessons, two or three interviews with school managers, a focus group with teachers and follow-up interviews with learners and teachers after the observation, where possible. Site visits provided most of the data used for developing case studies, upon which this publication builds.

To complement the case study data collection, a cross-cutting survey was carried out in June–December 2023. It aimed to understand the level of awareness of the learning-outcomes-based approach among VET professionals as well as its perceived usefulness and practical application. It targeted teachers, trainers (in schools and in companies), school principals and school VET curriculum coordinators. The survey was distributed through various channels, including Cedefop's website, social media, European VET provider associations, national stakeholders and direct contacts with VET providers. It was available in 10

languages. In total, 850 VET professionals (including 444 teachers and trainers who work in school settings) responded to the survey across the 10 countries selected. For responses by country, see Annex 2.

Qualitative data gathered from lesson observations, interviews and focus groups were analysed using a thematic perspective. The themes were identified deductively (Chard at al., 2005, pp. 79, 84), as the data coding was guided by pre-existing theoretical concepts, namely signals of a learning-outcomes-based approach. For example, a semantic theme of the role of learners was addressed by using codes such as ‘self-directed’, ‘individualised’, ‘active’, ‘flexible’, ‘learner-centred’ and ‘problem-based’, uncovering the explicit or implicit presence of a learning-outcomes-based approach. Overall, national reports were driven by predefined research questions and signals of learning outcomes. The national reports’ findings were synthesised using the thematic synthesis approach (Thomas & Harden, 2008). Initially, each report was coded with deductive codes from the thematic analysis. These codes were then grouped into descriptive themes, which were subsequently developed into analytical themes. For instance, when analysing VET providers’ perspectives, descriptive themes like the perception of the usefulness of learning outcomes, support for delivering learning-outcomes-based curricula and continuing professional development (CPD) in using learning outcomes formed the analytical theme of the embeddedness of learning outcomes at the provider level.

Quantitative data from the cross-cutting survey were analysed using descriptive statistics, mainly frequencies, as the small sample sizes of most case studies did not allow the application of cross-tabulation and inferential statistics.

Chapter 4.
National policies and administrative arrangements

Key messages

a) Countries can be divided into two groups, depending on when and under what conditions learning outcomes were introduced into educational discourse and administrative documents. Some countries started earlier (in the 2000s or before), driven by broader national VET reforms, such as Ireland, France, the Netherlands, Slovenia and Finland. Others started later (in the 2010s and after), mostly influenced by the adoption of the EQF, such as Bulgaria, Lithuania, Malta, Poland and Portugal.

b) Discussions on learning-outcomes-based approaches have been scarce in recent years (roughly since 2020). In the VET systems of the 'early adopters', learning-outcomes-based approaches are fully embedded and taken for granted.

c) In the countries studied, learning outcomes are defined in national standards underpinning vocational qualifications, in VET curricula/programmes or in both national VET standards and curricula.

d) Learning outcomes are typically defined at the national level, usually in cooperation between a national agency responsible for qualifications and VET and relevant non-governmental stakeholders.

e) Across all the countries studied, teachers have more autonomy in delivering learning outcomes than in adapting nationally defined learning outcomes into the school curricula; in other words, teachers' autonomy in **how** to teach is generally greater than in **what** to teach in terms of learning outcomes.

f) Only two of the countries studied (Lithuania and Finland) were found to provide training support and guidance on learning outcomes to VET teachers and trainers at the national level.

4.1. Context, rationale and debates regarding the use of learning outcomes in VET

This section provides a comparative overview of the context, rationale and debates regarding the use of learning outcomes in VET. First, the historical context of the adoption and use of learning outcomes is presented. Then, debates in the last few years (roughly since 2020) concerning the use of learning outcomes are reviewed.

4.1.1. Historical context related to the adoption and use of learning outcomes

In all countries studied, understanding the adoption and use of learning outcomes requires a consideration of the broader context of educational reforms

implemented in the last 20–30 years. Moreover, the adoption and acceptance of learning-outcomes-based approaches started earlier in some countries than in others. Within the country selection made for this study, a distinction can be made between two country groups.

(a) Ireland, France, the Netherlands, Slovenia and Finland started discussing and implementing learning outcomes (and related approaches) in VET in the 2000s or even before.

(b) Bulgaria, Lithuania, Malta, Poland and Portugal started discussing and using learning outcomes (and related approaches) later, in the 2010s and after. VET provision is still to a certain extent input oriented in these countries. They have taken significant steps at the national level to strengthen learning-outcomes-based approaches in recent years ([3]).

Table 1 provides a brief overview of the countries. The 'later adopters', which started discussing and using learning outcomes in the 2010s or later, are highlighted in grey in the table. The grouping of countries is further discussed in the sections below.

Table 1. **Historical context of using learning outcomes**

Country	Start of discussing and using learning outcomes	First emergence of learning-outcomes-based approaches (or related approaches)
Bulgaria	2010s or later	Amendments to the VET Act in 2014 and 2016
Ireland	2000s or earlier	Apprenticeship system in 1991 National framework of qualifications (launched in 2003)
France	2000s or earlier	Broader education reform in 2005/2006
Lithuania	2010s or later	Introduction of the Lithuanian qualification framework in 2010 and modularisation of the VET curriculum in 2012–2019
Malta	2010s or later	2012 publication of national curriculum framework
Netherlands	2000s or earlier	Vocational Education Act in 1996

([3]) The country reports provide further information on the specific concepts and terminologies used as well. As we are more interested in the broader picture of how in a broad sense learning outcomes approaches are adopted, we do not further discuss concepts applied to and associated with this approach in individual countries.

Country	Start of discussing and using learning outcomes	First emergence of learning-outcomes-based approaches (or related approaches)
Poland	2010s or later	Core curricula for vocational education based on learning outcomes (launched in September 2012)
Portugal	2010s or later	National qualification framework established in 2007, but significant developments after the National Agency for Qualification and VET released strategic documents in the 2010s to assist organisations and professionals in initial VET in adopting and implementing the learning-outcomes-based approach
Slovenia	2000s or earlier	National Vocational Qualifications Act (adopted in 2000, amended in 2006)
Finland	2000s or earlier	Competence-based approach (*osaamisperusteisuus*) part of Finnish VET since the early 1990s

Source: Authors, based on country research.

Countries that were early adopters of discussing the use of learning outcomes in VET tend to show learning outcomes as part of the fundamental orientation of VET systems, having those VET systems move away from input-based considerations of organising VET and structuring VET programmes (i.e. course subject, duration). Box 1 provides some examples of the countries analysed.

Box 1. **Early adopters of learning-outcomes-based approaches (in the 2000s or earlier): insights from France, Ireland and Finland**

In **France**, a broader education reform in 2005 had already initiated the shift to learning outcomes. The common base of knowledge and skills (2006) was a decree that followed the curricula reform of 2005 (Law for the Future of Schools). The common base 'defines all knowledge and skills that each pupil should master at the end of compulsory education, considered to be necessary to have successfully completed their education, to continue training, build personal and professional lives and contribute to a successful life in society' ([4]). The common base became the guiding document for curriculum development in schools. This decree was updated in 2013 within the 2013 Framework Act on the Reform of the Schools of the Republic. The 2013 reference framework for education and teaching professionals also introduced the concept of *compétence* as defined in the 2006 EU Council recommendation on key competences for lifelong learning (i.e. a combination of knowledge, skills and attitudes appropriate to the context; key competences are those

([4]) More information is available at Eurydice (2023).

that all individuals need for personal fulfilment and development, active citizenship, social inclusion and employment).

In **Ireland**, learning outcomes are part of the broader development trajectory in further education and training and have thus been seen as a key tool in its upgrading and modernisation, as a way to improve quality and attractiveness as well as to support inclusion. Learning outcomes first appeared in Ireland in the apprenticeship system in 1991, but it was when the national framework of qualifications was launched in 2003 that the definition and use of the term 'learning outcomes' were systematically reflected in policy, also being stimulated by Ireland's entry to the Bologna Process in 1999 (as reported by interviewees). Learning outcomes have thus been progressively used across the entire (formal) education and training system since the early 2000s.

In **Finland,** the competence-based approach (*osaamisperusteisuus*) has been part of VET since the early 1990s. The approach was initially implemented in adult VET, and later, in the early 2000s, it was introduced to initial VET for young people. Overall, the competence-based approach has shifted pedagogical thinking from teacher- and process-centred to student- and competence-centred learning. It also refers to a competence-based definition of VET qualifications, which is based on learning outcomes/objectives with high relevance to working life. In addition, the use of learning environments that are relevant to working life, and ways of demonstrating competences in real working-life situations, is included in the concept. It is believed that, by using a competence-based approach, the clarity and comprehensibility of the VET system to the world of work will be improved (Räisänen and Goman, 2018, pp. 7–9). The approach has been in constant development since its introduction, and it has been adapted, redeveloped and redefined through several phases. Evolving over time, reforms have aimed to diversify study methods, increase flexibility and individual choice, improve recognition of prior learning and align qualifications with industry needs. Since the 2010s, EU initiatives promoting mobility and transparency have influenced educational development, including VET. The 2018 VET reform consolidated legislation and introduced new tools for the implementation of the competence-based approach, such as personal competence development plans and learning agreements, prioritising recognition of prior learning and new financing models.

Source: Country case studies.

In other countries, the introduction of learning outcomes was facilitated by the adoption of the EQF in 2008. The EQF serves as a common reference point that ensures the transparency and comparability of qualifications across the EU by describing them in terms of learning outcomes. Thus, the EQF and the NQFs that refer to it have triggered discussions and implementation of learning-outcomes-based approaches in later adopters, such as Bulgaria, Lithuania, Malta, Poland and Portugal. In these countries, the adoption of learning-outcomes-based approaches in VET is still in progress as part of ongoing reforms. While legal frameworks exist in Bulgaria, Lithuania, Malta, Poland and Portugal, the structures are not yet fully in place to support the policy intentions around the use of learning-

outcomes-based approaches. Box 2 provides some examples from the countries analysed.

Box 2. **Later adopters of learning outcomes (in the 2010s): insights from Bulgaria, Lithuania and Malta**

In **Bulgaria**, the introduction of the learning-outcomes-based approach has a broader context. Namely, it relates to the use of a new approach in the design of VET standards but also to the introduction of apprenticeships as well as validation of non-formal and informal learning in VET. In terms of national policies, key milestones relate to amendments made to the VET Act in 2014 and 2016. The 2014 amendments stipulated the restructuring of the state educational standards for VET qualifications, including units of learning outcomes and assessment criteria. They also broadened access to VET through the validation of non-formal and informal learning (carried out by VET providers). Introducing the units of learning outcomes in VET standards made the validation process more transparent: applicants present the evidence of learning outcomes they possess to acquire a qualification or a part of it, allowing access to vocational training and to the labour market. The 2014 amendments also introduced dual training (apprenticeships), which has combined school- and work-based learning since 2015. Amendments made in 2016 harmonised the VET Act with the Pre-school and School Education Act, and aimed to improve the quality of VET by changing the ratio between theoretical and practical training in favour of the latter, including practice in a real working environment, which may have implications for the use of learning outcomes. The changes described above are likely to be more incremental: they address the whole VET system, require time and institutional arrangements and, therefore, cannot be implemented rapidly. As of April 2024, Bulgarian initial VET programmes are still structured in general subjects, VET subjects (general, specific) and elective subjects, all being associated with specific numbers of mandatory hours of instruction.

In **Lithuania**, the competence-based approach in VET dates back to the late 1990s. At that time, with the support of the European Phare programme, reforms were initiated to introduce competence-based VET standards ([5]). This introduced the concept of competence to VET curricula. The term ‘learning outcomes’ appears only in national-level documentation in the context of the transition to modular VET programmes and the introduction of the Lithuanian qualification framework in 2010. The period since then has been marked by a much more systemic approach to the development of competence-based qualifications and the national implementation of modular VET programmes. The systemic character of these reforms has been ensured by the logic of the development of the national system of qualifications, largely inspired by post-EU accession reforms. The introduction of the Lithuanian qualification framework in 2010 was followed by a project financed by the European Social Fund. The project aimed to design occupational standards for all sectors of the economy and national modular VET curricula (implemented in 2013–2019). Overall, implementation of the competence-based modular VET curricula has been supported by the investments in the infrastructure of the practical training (introduction of the

([5]) These are no longer in use and have been replaced by occupational (or sectoral qualification) standards.

sectoral practical training centres in 2014–2018), as well as efforts to implement apprenticeships as an alternative pathway to school-based training.

In **Malta**, the introduction of learning outcomes is closely linked to the introduction of the NQF. The related legislation in 2012 defined learning outcomes as 'statements defining what a learner knows, understands and is able to do upon completion of a learning process' (Ministry of Education and Employment, 2012). The legislation mandated that all qualifications included in the Malta qualifications framework must be based on learning outcomes related to knowledge, skills, and competences. Moreover, the legislation provided a description of the various qualification levels in the framework in terms of learning outcomes. The first reference to learning outcomes within compulsory education was in 2012 with the publication of the national curriculum framework (Ministry of Education and Employment, 2012). This document, which legally determines what education curriculum every child in Malta is to receive, indicated that compulsory education was to be based on a learning outcomes framework determining learning and assessment programmes, standards, criteria and profiles. This framework started being implemented in the national education system in 2018. The new reform introducing the new vocational subjects based on learning outcomes was introduced in the education system in 2019 among students in the third year of secondary school (secondary school lasts five years, and the VET syllabus covers the last three). Today, the complete education system in Malta is based on the use of learning outcomes. All syllabi, short courses and qualifications are now described in terms of learning outcomes.

Source: Country case studies.

In countries where the discussions and implementation of learning-outcomes-based approaches started in the 2000s or earlier (early adopters), the approach has developed into an intrinsic part of the education and training systems. Evaluations of the national framework of qualifications (NFQ) in Ireland illustrate this. In 2017, a report on the NFQ (Indecon, 2017, p. 21) found that learning-outcomes-based approaches had by that time 'become an integral part of the Irish education and training system', with evidence of a strong national consensus around the value of these approaches. In a national survey undertaken as part of the study, over two thirds of respondents associated with further education and training (FET) providers (including managers and teachers) agreed or strongly agreed that the learning-outcomes-based approach of the NFQ had improved the practices of course/curriculum design and assessment, while a slightly smaller percentage agreed that it had improved teaching and learning practice and the way standards of courses and curricula are monitored and maintained. Across all indicators, only 10–12 % of respondents disagreed or strongly disagreed. Interviewees confirmed that learning outcomes are a 'taken-for-granted' part of FET in Ireland.

In the Netherlands, the introduction of the competence-oriented approach in VET faced turmoil, opposition and misinterpretation in 2005–2015, but the intensity

of opposition decreased with the changes introduced to the VET act and the structure and descriptions of learning outcomes / competences in the qualification files (the reference documents for learning outcomes descriptors) in 2016. Since then, all VET schools have been working with the revised qualification files. Changes related to the implementation of learning-outcomes-based approaches concern increased flexibility of VET delivery, including a more modular provision (e.g. through elective modules (*keuzedelen*)). With the revision, qualifications are structured as the basic part, profile modules and elective modules (Broek, 2022). The political discourse has not substantially changed since then, while the practical discussions of how to use competence-oriented approaches in developing programmes and organising assessments have continued (Vanderlinde et al., 2020).

In Finland, the competence-based approach was initially understood as just qualification descriptions that were written in a specific way. However, nowadays, there is a common understanding that a competence-based VET system requires operational and supportive environments that need to be in place for its implementation and provision. These include steering and supportive legislation, suitable 'tools' (e.g. qualification requirements), individualisation processes, processes for recognition of prior learning and competences, assessment procedures and an appropriate financing/funding model.

The reasons for using learning-outcomes-based approaches differ between countries. In Ireland, for instance, the rationale for the adoption of learning outcomes and their functions are seen as (potentially) intrinsically bound up with the rationale for and functions of the NFQ. In *Policies and criteria for the establishment of the NFQ*, published in 2003 by the then National Qualifications Authority for Ireland, it is stated that the NFQ is 'for the development, recognition and award of qualifications' which is to be 'relevant to learners as they undertake learning throughout their lives' and 'can be a real step in the development of a lifelong learning society' (p. 9). It also states that the NFQ is 'learner-centred and values learning' (p. 9). It 'addresses the long-standing problem of lack of coherence in further and higher education in Ireland … with the needs of the learner taking priority' (p. 9).

The Finnish competence-based approach in VET is based on the idea that learners should only study and acquire skills and competences that they do not yet possess, rather than studying the entire qualification for its own sake. This requires, among other things, that the qualifications themselves are of high relevance to working life, flexible and up to date, that recognition of prior learning of learners is adequately processed and carried out, that the provision of VET is done in close cooperation with the workplace and that the flexible individual

learning paths are constructed and supported in an adequate manner. Competence development of individuals is seen as an important part of the national lifelong learning strategy, and there are also other policy-level strategies ([6]) whereby the successful implementation of the competence-based approach in VET, also including continuous VET, is seen as the most important success factor for achieving the set goals. All in all, there is clear and strong awareness and acceptance of the competence-based approach in VET (*osaamisperusteisuus*). In terms of the impact of the introduction of learning-outcomes-based approaches in the Netherlands, if the learning-outcomes-based approach is linked to the holistic reform of the VET system initiated by the 1996 VET Act, the impact is rather positive ([7]). With the VET Act and the developments in refining how to develop, describe and implement the qualification files, the learning-outcomes-based approach is fully implemented in that country. Further, the system is not at all contested or fundamentally questioned. In Poland, the introduction of learning outcomes was linked to providing schools with more autonomy in decisions on teaching programmes and enhancing the flexibility of training programmes and their alignment with the demands of the labour market and the evolving economy.

Overall, in countries that were already discussing the introduction of learning outcomes in the 2000s or earlier, there is limited questioning of the relevance of

([6]) For example, the strategic programme of Prime Minister Juha Sipilä's government (2015), 'Finland, a land of solutions', laid the guidelines for the VET reform that came into force in 2018. The programme of Prime Minister Sanna Marin's government (2019), 'Inclusive and competent Finland – A socially, economically and ecologically sustainable society', underlines VET as a tool to achieve the set political goals: 'The level of education and competence among the population will rise at all levels of education, differences in learning outcomes will decrease, and educational equality will increase' (p. 175). In addition, on the Ministry of Education and Culture's website it is stated that 'In the future, work life requires new kind of competence, while there are fewer financial resources available for education. VET has to respond more swiftly to changes in work life and operating environment and to adapt to individual competence needs' (Key projects reform Finnish education).

([7]) If the learning outcomes approach is specifically linked to the introduction of competence-oriented VET, the story is rather negative. The discussions around competence-oriented VET practice have a long and turbulent history in the Netherlands. The role of competences in the Dutch VET system has been subject to long-standing debates on how to operationalise competence-based education and training (*competentie-gericht onderwijs*) since its initial introduction in 2004 (Klarus, 2020). The introduction of this is regarded by many practitioners and researchers as a failure that is partly solved by the qualification files, which focus less on uncontextualised competences and more on the core tasks and work processes relevant to a specific occupation. Still, however, competences are referred to in the qualification files as supporting the behaviour the student will have to be able to demonstrate.

learning-outcomes-based approaches. Reform processes needed to apply learning-outcomes-based approaches have been completed, and limited fundamental developments associated with this have taken place in recent years. More attention is placed on adopting a learning-outcomes-based approach in practice. This is, for instance, visible in attention to teacher training in France ([8]) or rethinking VET/FET in the context of universal design of learning and learner-centred approaches in Ireland.

4.1.2. Current discussions and developments around the use of learning outcomes, and stakeholders involved

Since 2020, discussions on learning-outcomes-based approaches have been rare in the countries examined in the study. For instance, in Bulgaria, there has not been a national debate on the use of learning outcomes, and there are no plans to hold such debates in the future. In Lithuania as well, as of 2023, learning outcomes were not discussed much at the national level. Nor is the competence-based approach questioned or critiqued in any way. This can be mainly explained by the fact that competences are well embedded in the Lithuanian VET system, and further operationalisation of them using learning outcomes descriptions in 2012–2019 came naturally. Similarly, in Ireland, since learning outcomes are a taken-for-granted part of the FET system, there are no significant national debates around their value and purpose. There are some theoretical critiques on how to apply learning-outcomes-based approaches in FET. In line with the experiences in Ireland, in the Netherlands, no significant debates are taking place on the fundamentals of learning-outcomes-based approaches in VET. In Finland, the implementation of VET laws and reforms is prepared by broad consultations, limiting criticism afterwards. In Malta, the introduction of learning outcomes was well received by the key stakeholders: training providers and employers. There was overall agreement that learning outcomes would help learners, teachers, training providers and employers identify what learning has taken place and has been assessed. This may have been due to the government's investment in organising information seminars and other activities to explain to the different stakeholders the value and strengths of learning outcomes.

While debates related to the practicalities of developing learning-outcomes-based approaches and further developing IVET systems do occur, they do not

([8]) In 2015, a reference framework for teacher trainers was published (Ministère de l'Éducation nationale, 2015). For teacher trainers there are four main areas of competences to develop: how to choose appropriate teaching and learning approaches and methods; how to use criterion-based assessment; how to foster a learner-centred approach; and how to support active, self-directed learning.

question the foundations of learning-outcomes-based approaches. Examples can be found in the Netherlands and Finland (Box 3) (Cedefop, 2024).

Box 3. **Discussions on learning-outcomes-based approaches: insights from the Netherlands and Finland**

In the **Netherlands**, current debates and developments that might have an impact on how learning outcomes are perceived are related to a new focus on skills and developing a skills ontology (CompetentNL) to improve how different stakeholders in education, training and the labour market communicate about skills and to improve the matching of supply and demand in the labour market (TNO, 2022). This 'skills language' is seen as providing descriptions of job-related tasks and basically aims to provide a more fine-grained infrastructure to match supply and demand than looking at the formal qualifications and work experience people have. Once further developed, this could influence how the learning outcomes in VET qualifications are described, how they are assessed and, finally, how they are accredited (separately or as part of a full formal qualification). However, this development is still at the initial stages, without a clear indication of where developments are heading.

In **Finland**, different views of, opinions about and solutions to the practical implementation of the approach are being discussed. There is still room for VET providers and individual teachers to learn about essential elements of the approach, such as the understanding and proper use of recognition of prior learning. At the national level, discussion of competence-based VET centres around, among other things, the financing/funding model of VET and how it affects the practical implementation of competence-based VET at the provider level. The key question is in which direction the funding model used is steering the practical implementation of VET: if it enables the fulfilment of the fundamental principles of the competence-based approach, namely personalisation, individual learning paths, recognition of prior learning, flexibility, modularisation and the relevance of VET to work life and/or the labour market, among other things. Another important discussion theme among the national-level VET and labour market stakeholders is the type of skills and competences the VET qualifications produce; the discussions are not about whether or not to use learning-outcomes-based approaches, but more on the content and direction of the learning outcomes descriptions that inform VET delivery.

Source: Country case studies.

4.2. Learning outcomes descriptions in reference documents

This section aims to provide a comparative overview of how learning outcomes are defined in national reference documents across the 10 countries studied. It

highlights the types of documents that provide learning outcomes descriptions ([9]) and identifies stakeholders involved in their formulation. It also gives insights into how learning outcomes are formulated both content-wise and linguistically.

4.2.1. Use of learning outcomes and stakeholder involvement

The introduction of learning outcomes descriptions in VET systems has taken different forms. Comparing the 10 countries included in this study, two key paths have been identified: (1) defining learning outcomes in the framework of VET curricula/programmes and/or (2) doing so in qualification standards (requirements). A few countries, such as Lithuania, Poland and Slovenia, define learning outcomes exclusively in VET curricula/programmes. It means that VET curricula/programmes are set up at the national level and provide general top-down guidance for adaptation and implementation by each VET provider. Higher-level documentation on qualifications (e.g. occupation, education, qualification standards), judging from the data collected, does not refer to learning outcomes explicitly.

(a) In Lithuania, learning outcomes are defined in modular VET programmes. These are developed and updated at the national level and made available to the public on the official website of the Qualifications and Vocational Education and Training Development Centre (QVETDC), which operates under the Ministry of Education, Science and Sport. Each VET programme designed at the national level provides detailed descriptions of modules that it comprises. For each of these modules, a national code, module name, associated NQF level and number of credits are provided. Competences and learning outcomes that, as stipulated in programmes, illustrate the achievement of competences are listed as well. Each programme also provides recommendations on contents of teaching and learning (i.e. topics and subtopics, and, in some cases, tasks) to achieve these learning outcomes, assessment criteria to be used, requirements for teaching and learning materials and resources, requirements for the learning environment, and requirements for the qualifications and competences of VET teachers.

(b) In Poland, vocational schools train students in occupations defined in the Classification of Vocational Education Occupations following the core curriculum for vocational education. The core curriculum is described in the form of intended learning outcomes (knowledge, vocational skills, personal and social competencies) specific to each identified qualification within a given

([9]) By ‘learning outcome descriptions’ we mean statements in reference documents (e.g. occupational standards, qualification requirements, curricula) that define what a learner should know, understand and/or be able to do at the end of a learning process.

occupation. The learning outcomes defined in the core curriculum are grouped into units of learning outcomes. The minimum number of instructional hours required to complete each unit is specified. The core curriculum for vocational education was modified in 2019 following consultations with teachers and employers. In addition to learning outcomes in the earlier version of the core curriculum, criteria for verifying these outcomes were defined. Verification criteria help set exam requirements for external examination and assist teachers in creating assessments throughout the school year.

(c) In Slovenia, national VET framework curricula define the knowledge, skills and attitudes expected to be acquired by students. The syllabi usually follow Bloom et al.'s (1964) taxonomy of learning outcomes. Broad competences in the catalogues of knowledge for modules/subjects are defined as the ability and readiness to use knowledge, skills and attitudes in study and work contexts ([10]).

In most countries studied, though, learning outcomes descriptors are embedded in national standards that underpin vocational qualifications. These are referred to differently (e.g. occupational, qualification, education standards), but all describe what an individual should know, understand and be able to do to obtain a certain qualification and to be able to work in a related occupation in the labour market. Here are some examples.

(a) In Bulgaria, the 2014 amendments to the VET Act stipulated the restructuring of the state educational standards for VET qualifications, including units of learning outcomes and assessment criteria. Learning outcomes in VET standards define the obligatory competences needed to acquire a professional qualification, and they are the same for both initial VET and continuing VET. VET standards are developed and updated at the national level by the expert commissions at the National Agency for VET. The expert commissions are organised according to vocational fields and include representatives of the Ministry of Education and Science, the Ministry of Labour and relevant branch ministries as well as representatives of employers' and employees' organisations from the relevant sector.

(b) In Ireland, learning outcomes are defined within the context of the NFQ and the common awards system. The NFQ, operational since 2003, and the common awards system, introduced in 2007, provide the framework for developing and reviewing qualifications. The structure of qualifications in the NFQ includes major, professional, minor, special purpose and supplemental awards. Major awards, typically containing 8–10 general learning outcomes, are broken down

([10]) 'Vocational education and training in Europe: VET in Europe database – detailed VET system descriptions: Slovenia 2021'.

into constituent minor awards. These minor awards have more detailed learning outcomes, and their specifications provide the basis for the development of FET programmes by providers.

(c) In France, a new national institution – France compétences – which regulates the implementation of the competence-based approach in education, was established in 2018. France compétences defines learning outcomes as the expression of competences assessed (and certified) (France compétences, 2021). These competences have been defined in several reference frameworks at the national level and are to be used at the regional level by the educational institutions reporting to the Ministry of National Education (MEN) and the Ministry of Higher Education and Research. Specifically, in the VET sector the concept of competence is used in such a way that 'skills and tasks are integrated into all training programmes (including structuring of education, clear training objectives, straightforward progress measurement, and certification' (Paguet & Ambrogi, 2015, p. 9).

(d) The Malta qualifications framework (MQF) was set up officially through Subsidiary Legislation 607.1 Malta Qualifications Framework for Lifelong Learning Regulations on 24 September 2012. This legislation defines a learning outcome as 'a statement defining what a learner knows, understands and is able to do upon completion of a learning process' (p. 1). It also requires that all qualifications that form part of the framework are based on learning outcomes defined with respect to knowledge, skills and competences. This legislation requires all training institutions in Malta to use the learning-outcomes-based approach.

(e) In the Netherlands, the reference documents for learning outcomes descriptors are the qualification files. The qualification file provides an overview of the qualification standards for one or more VET occupations and gives insight into the relevant learning outcomes in terms of the knowledge, skills and competences that a qualification holder is expected to have accumulated by the end of their education/training.

(f) In Portugal, learning outcomes are defined in the National Catalogue of Qualifications (NCQ), an instrument addressed to citizens, VET providers, companies, social partners and all entities responsible for managing and regulating the NQF. The NCQ provides information on (a) the qualifications available in the NQF, organised according to education and training areas or sectors (e.g. commerce and marketing; IT, electronics and telecommunications; health and community services; transport and logistics; tourism and leisure); (b) the regulated activities/professions to which those

qualifications are related; (c) the curriculum to follow to acquire one of those qualifications.

(g) In Finland, all qualification requirements are designed and developed under the leadership of the Finnish National Agency for Education (EDUFI), and they are then implemented locally by VET providers. All qualification requirements are based on the learning-outcomes-based approach (knowledge, skills and competences), which is also the basis for learning, teaching and assessment. The same qualification requirements are applied in all forms of VET aimed at achieving a vocational qualification. Each qualification consists of vocational units and common units, both of which include optional and free-choice modules.

From the implementation perspective, it is crucial to comprehend how these national standards are translated into VET curricula and whether VET curriculum structures align with expected learning outcomes for each qualification. For instance, in some countries (e.g. Bulgaria, Malta), relevant legislation and/or provider-level documentation regulates structuring VET curricula into modules / units of learning outcomes.

(a) In Bulgaria, according to the relevant legislation, VET curricula must comply with VET standards, meaning that they need to be structured into units of learning outcomes. However, the latter is not clearly stated in legislation and there are also no guidelines as regards how to integrate units of learning outcomes into VET curricula. Curriculum analysis shows that VET curricula indeed describe intended learning outcomes, but not their units. Therefore, learning outcomes descriptions in VET standards are more detailed than those in curricula. VET curricula can include free elective subjects, which are not defined in VET standards. In relation to obligatory subjects, optional modules are likely to be used to a limited extent.

(b) In Malta, the main public provider for VET (Malta College of Arts, Science, and Technology (MCAST)) has developed a manual that states principles and processes for the design and development of new accredited programmes. Among other criteria, the manual requires that new programmes must be based on learning outcomes and distinguish between knowledge, skills and competences.

In other countries (e.g. Ireland, France, Portugal), learning outcomes are not explicitly defined in the curricula. There is also a scarcity of regulations and instructions on how VET providers should create their programmes using the learning-outcomes-based approach. For instance, in Portugal, curricula for each qualification are structured in short-duration training units of 25 or 50 hours, usually

content oriented rather than learning outcomes oriented ([11]). The content can be specific, but there is no clear match between the content and the knowledge, skills and attitudes defined in the professional profile.

In all countries studied, learning outcomes are defined at the national level (in qualification frameworks or curricula), usually in cooperation between a national agency responsible for qualifications and VET and relevant non-governmental stakeholders, such as trade unions, professional associations, employers and VET providers. Here are some examples.

(a) In Bulgaria, VET standards for each qualification based on the learning-outcomes-based approach are defined by the expert commissions at the National Agency for VET, which are organised according to vocational fields and include representatives of the Ministry of Education and Science, the Ministry of Labour and relevant branch ministries as well as representatives of employers' and employees' organisations from the relevant sector.

(b) In Ireland, Quality and Qualifications Ireland (QQI) convenes standards development groups to develop the standards for new QQI awards and convenes review groups as necessary, from time to time, to review existing QQI awards, a process that is focused on ensuring the continued relevance of QQI awards. QQI has the role of ensuring that the composition of development/review groups is reflective of the range of stakeholders on the one hand and on the other includes the relevant expertise. These groups comprise small numbers of key stakeholders (e.g. 6–10), including from industry. Once a draft standard has been developed, it will normally be published for public consultation on the QQI website. The draft may be modified following consideration of the consultation feedback.

(c) In Lithuania, the QVETDC coordinates the design and renewal of VET programmes or their modules in consultation with sectoral professional committees. These committees comprise representatives of relevant ministries, social partners, VET providers and institutions of science and studies (as defined in the Law on Science and Studies of the Republic of Lithuania).

(d) In Portugal, a dedicated qualification agency (the National Agency for Qualification and VET) together with sectoral councils for qualifications, organised by area of education and training, design the qualifications and revise the relevant curricula in accordance with the learning-outcomes-based approach.

([11]) Except for some qualifications and curricula defined for the sectors of tourism and trade and services to companies.

(e) In Finland, EDUFI is responsible for preparing the national (vocational) qualification requirements in collaboration with representatives of working-life organisations, with education providers and with other key stakeholders. In addition, in preparing the national (vocational) qualification requirements, EDUFI collaborates with the business and industry committees responsible for the qualification requirements concerned.

4.2.2. Formulation of learning outcomes content-wise and linguistically

In line with the Council recommendation on key competences for lifelong learning, 6 out of the 10 countries studied (Bulgaria, Malta, Poland, Portugal, Slovenia, Finland) define learning outcomes in terms of knowledge, skills and competences. Poland includes these in the national core curricula, while the others do so in qualification requirements.

(a) In Bulgaria, the granularity of learning outcomes as defined in VET standards is rather high, since knowledge, skills and competences are separately defined for each unit of learning outcomes, specifying the EQF/NQF level as well.

(b) In Malta, learning outcomes distinguish between knowledge, skills and competences. Skills are further categorised into four types: applying knowledge and understanding, communication skills, judgement skills and learning skills. The EQF *Referencing Report* also provides guidance on the programme design of initial VET and continuous VET qualifications in terms of learning outcomes assigned for VET qualifications. The report specifies the percentage workload of learning outcomes dedicated to key competences, sectoral skills and underpinning knowledge as indicated for each MQF VET qualification. The higher the level of MQF VET qualification, the more of the workload is allocated to developing knowledge and skills and the less to competences.

(c) In Poland, the core curriculum is described in the form of expected learning outcomes (knowledge, vocational skills and competences) specific to each identified qualification within a given occupation, where competences are further divided into personal and social.

(d) In Portugal, the professional profile of the NCQ describes the activities related to the qualification and the competences in terms of knowledge, skills and attitudes.

As opposed to the abovementioned countries, there are other examples (e.g. Ireland, Lithuania, the Netherlands) where learning outcomes components are distinguished only implicitly or tend to integrate knowledge, skills and competences.

(a) In Ireland, given the large number of diverse qualifications available in FET, it is not surprising that there is quite some variation across awards in how they deal with knowledge, skills and attitudes/behaviours, sometimes separately identified and sometimes integrated. In general, there is a large variation in how learning outcomes are described/specified, with some being quite general in nature and others being very specific.
(b) In Lithuania, each VET programme consists of modules that comprise competences and associated learning outcomes. Individual learning outcomes are not explicitly categorised into knowledge versus skills versus attitudes or behaviours. However, the wording of learning outcomes descriptors typically implies one or the other.
(c) In the Netherlands, there is now a stronger emphasis on integrating knowledge, skills and competences into a coherent whole. This is evident not only in the way these aspects are assessed as a cohesive unit during examinations but also in their portrayal within qualification files, moving away from isolated evaluations of skills, knowledge and competences.

The Council recommendation of 22 May 2018 on key competences for lifelong learning states the need to include transversal skills and competences (e.g. literacy, critical thinking, communication skills, digital competence, creativity, problem-solving, decision-making) in VET curricula as a tool to improve the employability and personal fulfilment of learners.

In line with these recommendations, some countries (e.g. Lithuania and Finland) treat transversal skills separately from technical skills and explicitly include them in both general and VET-specific subjects.

(a) In Lithuania, all VET programmes include recommendations on key competences important for one's professional activity in the field. These build on the Council recommendation on key competences for lifelong learning and refer to key competences as they are understood at the EU level, including literacy competence, multilingual competence, competence in science, technology, engineering and mathematics, digital competence, personal, social and learning to learn competence, citizenship competence, entrepreneurship competence, and cultural awareness and expression competence. Each one is linked with a set of learning outcomes that illustrate the achievement of these competences. Learning outcomes clearly refer to what is relevant in the context of one's professional activity. For instance, in relation to literacy, students are required to be able to write a CV, motivation letter or electronic email; as regards citizenship, they must be able to work in a team, respect themselves, their country and its traditions, etc. Based on common VET plans for the 2021/2022 and 2022/2023 academic years,

approved by the Minister for Education, Science and Sport, it is recommended to develop students' critical thinking, creativity, initiative, problem-solving, decision-making, emotional management and other key competences. Common VET plans envisage that key competences are integrated in modules and are to be allocated no less than 10 % of the time spent to deliver the whole VET programme. VET providers must detail in which modules which key competences will be developed, and how many hours will be allocated to each key competence. This is to be done in the plan that each VET provider prepares on the implementation of VET programmes it offers.

(b) In Finland, the qualification requirements define the key skills and competences for lifelong learning, for example learning and problem-solving skills, interaction and cooperation skills, competence in professional ethics and aesthetics, competence in sustainable development and active citizenship, and knowledge of other cultures. Key skills for lifelong learning are essential elements of the VET qualifications and are integrated into the vocational and common units. Currently, there are eight defined key competences for lifelong learning ([12]) in each initial VET qualification containing learning outcomes, and there are assessment criteria for each key lifelong learning competence.

With regard to the linguistic structure, learning outcomes are formulated using active verbs in all cases studied in depth.

Table 2. **Linguistic structure of learning outcomes descriptors in reference documents**

Country name	Comments on linguistic structure
Bulgaria	Learning outcomes are mainly expressed through the use of verbs such as 'know', 'apply', 'use', 'be familiar with', 'work with', 'show' and 'assess'.
Ireland	The list of learning outcomes typically consists of the statement 'Learners will be able to …' followed by a list of statements starting with a verb. In the example of the 'Tourism principles and practice' qualification, the verbs utilised are 'explain', 'outline', 'describe', 'identify' and 'use'.

([12]) Defined lifelong learning competences are communication and interaction competence, mathematics, science and technological competence, digital competence, competence development skills, social and citizenship competence, entrepreneurial competence, cultural competence and competence for sustainable development.

Country name	Comments on linguistic structure
France	The recommended approach to writing competences in the curricula for VET qualifications is the following: • an action verb in the infinitive, since the skill takes its meaning from the action; • the 'what', the subject of the action; • the 'why' or the 'purpose', the competence expressed in relation to an objective or a result to be achieved ('for', 'in order to', 'in view of', 'for the attention of'); • possibly the 'how', since implementation of the skill depends on the resources provided (the object of the action, the operating procedure or the resources) (France compétences, 2019).
Lithuania	Learning outcomes are defined as the ability to understand, describe, explain or do something. All statements are formulated by using infinitives and can be understood as learning objectives or expectations of what a student should be able to do at the end of a learning process.
Malta	The Further and Higher Education Authority, responsible for the accreditation of training providers and programmes, gives directions for learning outcomes descriptors targeting knowledge, skills and competences. The knowledge component of the learning outcomes can be expressed using such verbs as 'identify', 'define', 'list', 'describe' and 'find'. The skills component can be formulated through the verbs 'apply', 'practice', 'demonstrate', 'design', 'construct', 'create', etc. The competences component can use verbs such as 'collaborate', 'comply', 'ensure', 'deal with' and 'be responsible for'.
Netherlands	The learning outcomes statements, in terms of the short sentences used to present the work processes, are composed of both an action verb and an object of the verb, often using the continuous form of the verb ('-ing'). The context in which they apply can be determined from the short sentence used to present the core tasks to which the learning outcomes are linked. For these core tasks, however, the composition of the statements is different: no use of the continuous form and instead the simple present tense to indicate the tasks qualification holders can perform. The depth/breadth of learning that is required of the qualification holder and the relevant context(s) it can be applied to are further described in separate sections for each learning outcome.
Poland	Each qualification includes learning outcomes and corresponding evaluation criteria. Learning outcomes are expressed in the form of what the 'student' 'distinguishes', 'characterises', 'provides', 'determines', 'applies', etc.
Portugal	Skills and attitudes related to a qualification are described using verbs.
Finland	Learning outcomes and assessment criteria are expressed as activities in the occupational area and activities in work. As an example, in the vocational qualification in electrical engineering and automation technology, competence requirements (learning outcomes) for the vocational unit 'Low and extra-low voltage electrical installations' comprise verbs such as 'comply', 'interpret', 'assess', 'plan' and 'manage'.

Country name	Comments on linguistic structure
Slovenia	Learning outcomes are defined in the Article 2 of the Slovenian Qualifications Framework, in terms of knowledge, skills and competences standardised at a specific qualification level.

Source: Authors, based on country research.

4.3. School and teacher autonomy, and approaches established at the national level

This section looks at how much autonomy VET schools and teachers have when adapting learning outcomes to local contexts and teaching plans across the countries studied. It distinguishes between two types of autonomy: autonomy in what to teach (i.e. curriculum and learning outcomes descriptors) and autonomy in how to teach (i.e. pedagogies, learning materials and activities, and assessment). The analysis expands upon the concept of teacher autonomy in curriculum design and pedagogy. It concludes with a comparison of how the countries studied inform and support VET teachers with pedagogical changes in relation to learning outcomes.

One of the core ideas of learning-outcomes-based approaches is to give teachers more autonomy in making decisions around teaching and learning (Cedefop, 2010). For instance, while intended outcomes described in qualification standards and curricula are often relatively specific, teachers are able to add, remove or adjust learning outcomes during delivery to respond to the immediate needs of their students (Cedefop, 2010). They are also allowed flexible delivery and can choose from a range of teaching methods and assessment approaches (Cedefop, 2022a). This means that teachers should be able to adapt their methods to best suit the needs of the learner. However, in practice, teacher autonomy in interpreting, adapting, achieving and assessing learning outcomes is different depending on country-specific regulations and policies.

Considering autonomy in curriculum design/adaptation (what to teach), it is crucial to consider the level of autonomy VET schools and teachers have when it comes to implementing and adapting learning outcomes defined in national reference documents. For example, do national qualification specifications have any optional modules that can be added at the local level? To what extent can learning outcomes be changed, added to or interpreted at the municipal / local authority, school or teacher level?

Considering pedagogical autonomy (how to teach), it is important to examine the extent to which pedagogies are prescribed within national reference documents (e.g. qualifications or programme descriptions, framework curricula)

and whether schools and teachers have the freedom to manoeuvre among pedagogical approaches and methods. Cedefop's previous research has revealed that there are significant differences in the types and extent of pedagogical guidance provided across countries in relation to learning outcomes (Cedefop, 2024). It is also necessary to explore the extent to which national authorities have attempted or intend to incorporate an explicit learner-centred pedagogical approach as part of learning-outcomes-based curricula.

4.3.1. Autonomy in curriculum design

The level of autonomy given to schools and teachers in relation to designing and implementing learning outcomes varies between and even within the Member States. This variation depends mainly on the level of detail and prescription of learning outcomes at the national level. If the learning outcomes are highly prescriptive, leaving little room for interpretation, teachers have less freedom in what and how they teach. Conversely, more broadly defined outcomes and the possibility of adding learning outcomes can provide teachers with greater autonomy to design their own programmes and decide on assessment methods. Another aspect of the autonomy of VET schools and teachers in relation to learning outcomes is the extent to which they can participate in the design of qualifications by adding their own optional modules and learning outcomes based on their experience and local needs. This allows for more personalised earning experiences that are tailored to the needs of the students and the community.

Considering those aspects, the selected countries can be grouped according to teacher autonomy in tailoring the curriculum and adapting learning outcomes, in the following way. On the one hand, there are VET systems (e.g. in Malta for VET in compulsory education, or in Poland) that are characterised by relatively centralised curricula and highly detailed learning outcomes, with limited opportunities for teachers and schools to adjust modules or add optional ones relating to local needs. On the other hand, there are countries (e.g. Bulgaria, Lithuania, Malta and, in post-compulsory education, Finland) with at least some aspects of decentralised curriculum design and more autonomy for VET teachers and schools in deciding on what knowledge, skills and competences students should achieve. Examples of different kinds are featured below.

(a) In Malta, the learning outcomes for VET subjects in secondary (compulsory) education are determined by the Matriculation and Secondary Education Certificate (Matsec) Board of Examiners, which periodically appoints a committee of experts and teachers to review the learning outcomes. However, once the syllabi are set for a particular year, they determine what learning outcomes all teachers in secondary schools have to teach. VET teachers thus

do not have any autonomy in terms of determining what learning outcomes to target in their teaching. The Matsec board also determines which learning outcomes are taught in each year. The interviews with teacher trainers in fact highlighted the prescriptive way in which VET curricula are being implemented in secondary schools because of Matsec board's control.

(b) In Poland, the learning outcomes and verification criteria are described precisely and in detail in the core curriculum for vocational education. Therefore, when developing school teaching programmes, there is no requirement to redefine the learning outcomes. The focus is on appropriately organising the learning outcomes, planning their sequential accomplishment, and selecting suitable methods and resources to achieve specific outcomes, as well as methods for monitoring and assessing learning progress.

On the other hand, there are countries (e.g. Bulgaria, Lithuania, Malta and Finland in post-compulsory education) with at least some aspects of decentralised curriculum design and greater VET teacher and school autonomy in deciding on what knowledge, skills and competences students should achieve.

(a) In Bulgaria, VET schools have relatively limited autonomy concerning the use of learning outcomes related to mandatory subjects delivered in IVET programmes. While learning outcomes in national documents are not likely to be used verbatim in teaching or learning, VET curricula must comply with the learning outcomes specified in educational standards and requirements – otherwise they will not be approved by the Ministry of Education and Science. However, VET schools do have autonomy in relation to the design of free elective subjects. For instance, VET schools define these subjects considering the school’s profile, specialities and available resources (knowledge and competences of teachers, among others) as well as students’ interests. Very often, free elective subjects in IVET enhance the acquisition and/or further development of digital and foreign language skills.

(b) In Lithuania, VET providers have certain discretion to alter VET programmes provided at the national level (including learning outcomes identified and defined in them). Based on the description of the procedure for the development and registration of VET programmes, VET providers can change the scope of taught modules, but must guarantee a satisfactory level of student achievement, and that competences identified and defined in a relevant occupational standard (or, if there is none, in a VET programme) are developed. Based on the guidelines aimed at facilitating the design and implementation of modular VET programmes published by the QVETDC in 2013 and 2021, VET providers can add to the list of learning outcomes outlined in national VET programmes and choose which competences and learning

outcomes to focus on in each module. Common VET plans for the 2021/2022 and 2022/2023 academic years further explain that VET providers detail, or adapt to labour market and student needs, topics and subtopics listed in national VET programmes. VET providers also decide on which optional modules they will offer to students. VET providers can also alter the order in which they teach different modules; note that the order established in VET programmes at the national level is only recommended.

(c) In Malta, VET teachers in post-compulsory education have a degree of freedom in terms of determining the learning outcomes for qualifications and awards at IVET or continuing vocational education and training. In the case of VET qualifications accredited by the Malta Further and Higher Education Authority, licensed training providers are free to propose VET qualifications with the learning outcomes they consider most appropriate. This allows VET teachers autonomy with respect to proposed training courses that reflect current needs. However, the qualifications proposed need to undergo evaluation by experts in the area, who review the learning outcomes in terms of MQF level targeted, number of credits allocated, and knowledge, skills and competences included. MCAST also gives VET trainers the autonomy and flexibility to propose new courses. However, all new courses need to undergo a review process. The review is a two-step process: in the first phase, the new course is evaluated as a concept, and, if it is approved, the learning outcomes of the individual study units are then developed by the VET trainers. The whole course developed is again reviewed to ensure that it is in line with MCAST's rules and regulations.

(d) In Finland, VET providers must follow national vocational requirements, including set learning outcomes, assessment criteria and study structures. However, they have considerable autonomy in organising and delivering their programmes. Specifically, VET providers can add learning outcomes to meet local labour market needs and include optional modules from higher education and specialised vocational qualifications.

4.3.2. Pedagogical autonomy

While the decision on learning outcomes that underpin VET qualifications is often centralised, VET teachers and schools have more autonomy in choosing pedagogical and assessment methods that enable greater consideration to be given to the needs of individual learners. In most of the selected countries, the way in which learning outcomes should be achieved (teaching content, methods, theories, training activities, evaluation strategies, etc.) is defined by VET schools and teachers.

(a) In Bulgaria, the autonomy of VET schools and teachers in relation to learning outcomes is limited to the use of pedagogies, assessment methods, and teaching and learning materials chosen to deliver outcomes-based curricula.
(b) In Lithuania, VET providers, teachers and trainers have a lot of autonomy regarding teaching and learning approaches to deliver a learning-outcomes-based VET curriculum. Judging from a thorough review of national policy documents, there is no explicit approach to teaching and learning that national authorities promote, at least not beyond very general principles of competence-based VET and student-centredness. The key push at the national level has been in regard to the transition to modular (rather than subject-based) VET programmes, including identification and thorough descriptions of expected student achievements (i.e. in terms of competences and learning outcomes – for more details, see Section 2.1). How to deliver these, though, is up to individual VET providers and their teachers and trainers. This was confirmed by the representative of the Ministry of Education, Science and Sport, who clearly stated that VET providers and VET teachers and trainers have significant autonomy to decide on how to deliver individual modules. This includes choosing teaching and learning methods, assessment approaches, and teaching and learning materials.
(c) In Malta, teachers have autonomy with respect to the classroom pedagogy that they will adopt to help the students achieve the learning outcomes. Teachers in compulsory education are considered professionals and thus capable of deciding on which pedagogies are best adapted to use with their students. However, the learning outcomes and assessment processes for the VET subjects set by Matsec are very prescriptive, and leave teachers with very limited room for manoeuvre, even in terms of pedagogy.
(d) In the Netherlands, VET schools and teachers have autonomy and responsibility in organising VET and the pedagogical principles underpinning their teaching and learning, including through development of learning plans, pedagogical approaches and arrangements with employers to organise the work-based learning components. Within the VET schools, teachers – or rather the sectoral teacher teams (including all teachers and in-school trainers) – are responsible for developing and implementing the VET programmes.
(e) In Poland, the organisation of classes and grouping of topics specified in the curriculum for different occupations are determined by the teaching programme developed by and used in a given school. Teaching programmes are developed by an individual VET teacher or a team of teachers and must be approved for implementation by the school director. The involvement of employers in the consultation process during the development of the teaching

programme is recommended. It is also possible to adopt the programme provided (e.g. by textbook publishers or teacher-training institutions).

(f) In Portugal, VET providers need to follow learning outcomes as defined in the qualifications and curricula in the NCQ ([13]). Still, schools and teachers have the autonomy to adopt their own teaching theories and strategies to achieve learning outcomes defined in the qualifications. They can also choose the activities and exercises for training in accordance with the learning outcomes defined, settle their evaluation strategies, identify and integrate additional learning outcomes in their classes, and propose the revision of the qualifications and curricula of the NCQ.

(g) In Finland, VET providers, teachers and trainers are free to decide how to design and conduct their work. Of course, there are steering legislation and VET providers' own working processes and regulations, but legislators, the Ministry of Education and Culture, EDUFI or any other macro-level actor do not and cannot define how this should be done. The regulations and working processes of a specific VET provider define more powerfully the circumstances and environments in which teachers can pursue their work.

4.3.3. Training and guidance on learning outcomes

Changing the VET policy agenda towards a learning-outcomes-based approach requires engagement with VET providers and teachers and guiding them through the new requirements and principles. This can be achieved in various ways, ranging from providing guidelines on how to use learning outcomes to offering extensive support through initial and continuous training, as discussed by Cedefop (2024). Countries can be categorised based on the level of guidance and training provided to VET teachers for implementing learning outcomes. Some countries, like Bulgaria and France, provide limited training and guidance, while others, such as Finland and Lithuania, offer extensive training and guidance through national or local bodies.

(a) In Bulgaria, national authorities do not have an explicit approach to teaching and learning as part of a learning-outcomes-based curriculum. For instance, there is no specific training or guidance on learning outcomes for VET subjects, either in initial or in CPD teacher-training provision. One exception is the CPD training dedicated to the implementation of validation procedures in VET, since schools can be validation providers and teachers can be involved in assessment. There are specific training courses and guidance material on

([13]) The instrument relates to 274 vocational qualifications in 39 educational and training areas targeting young people and adults aged over 18 with no higher education qualifications.

learning outcomes related to general subjects (which are part of VET curricula). Available training and guidance are not prescriptive; they are used on a voluntary basis. In 2019, the Ministry of Education adopted a programme aimed at offering basic pedagogical and psychological knowledge and skills to company mentors ([14]) but following the programme is not obligatory to become a mentor. Based on the programme, an EU-funded project called 'Support for the dual learning system' (2020–23) was launched with training activities targeted at VET teachers and company mentors. For example, a training course for 706 mentors was expected to take place by October 2023. There is no further information on the outcomes of the project ([15]).

(b) In France, specific training or guidance on competence-based approach or learning outcomes is not provided at the national level; rather, teacher-training institutions determine whether to organise ad hoc trainings for their teachers and trainers. However, according to inspectors working at the MEN, there have been several training modules developed around teaching and assessment by competences.

Only a few of the countries studied have demonstrated extensive national-level teacher training and guidance on using learning outcomes.

(a) In Finland, EDUFI has extensively supported the implementation of the competence-based approach in vocational education. This includes creating a formal vocational qualification for VET professionals, producing written materials for practical implementation, issuing regulations, establishing regional support groups, and providing financing for training and consultation. For instance, the 'Best skills and practices' project, funded by the Ministry of Education and Culture and EDUFI from 2017 to 2019, aimed to support the VET reform of 2018. It focused on renewing teaching methods, promoting student-centred learning and developing uniform practices across VET providers. The project produced materials like competence profiles, guidelines for assessments and demonstrations, and conducted pilot training for various VET stakeholders.

(b) In Lithuania, the QVETDC (the national authority responsible for VET) supports VET teachers by offering a variety of resources on teaching, learning and assessment. These resources are available on its website and include a 'good practice bank' with materials like virtual lessons and textbooks. The QVETDC also provides theoretical and practical tasks tailored to different qualifications,

([14]) Adopted by means of Order No RD 09-997/2.4.2019, Minister for Education and Science.

([15]) The project website: https://dual.mon.bg.

aligning with national VET programmes. Practical tasks are prepared based on competences, learning objectives and learning outcomes identified and defined in VET programmes and occupational standards.

4.4. Conclusions

The adoption and implementation of learning outcomes in VET are closely tied with broader reforms implemented in education over the past few decades. Countries like Ireland, France, Malta, the Netherlands, Poland, Slovenia and Finland, have made significant progress in this respect. Others, such as Bulgaria, Portugal and, to some extent, Lithuania, are still in the earlier stages of implementing learning outcomes but are actively working to strengthen this approach at the national level. Interestingly, while some countries (e.g. Bulgaria and Ireland) have embraced learning outcomes with little debate, others (e.g. France, the Netherlands and Finland) are engaged in ongoing discussions about practical implementation and potential improvements in VET systems.

Zooming in on learning outcomes descriptors, most countries analysed feature these in the national standards that underpin vocational qualifications. Lithuania, Poland and Slovenia define learning outcomes mainly in nationally established framework VET curricula. In all cases, learning outcomes descriptors for VET qualifications are developed at the national level in collaboration between a national authority responsible for VET and different councils/committees/groups comprising a range of stakeholders (e.g. employers, VET providers, trade unions, and other education and qualification experts). Further, most of the countries studied categorise learning outcomes into knowledge, skills and competences/attitudes in their qualification requirements and/or curricula. Transversal skills and competences might be included in both general and vocation-specific subjects but usually are treated separately, especially when it comes to assessment. Above all, learning outcomes are typically formulated using active verbs, such as ‘define’, ‘list’, ‘describe’, ‘apply’, ‘practice’, ‘construct’, ‘create’, ‘collaborate’, ‘ensure’ and ‘be responsible for’. This illustrates that the intention of VET systems is that students demonstrate not only knowledge but also the ability to apply that knowledge in practice upon completion of their VET programme.

As regards VET providers’ and teachers’ autonomy, two aspects are key: autonomy in how to teach (pedagogical autonomy) and autonomy in what to teach (autonomy in curriculum design and adaptation). Across the countries studied, the level of pedagogical autonomy is usually higher than the level of autonomy linked to the adaptation of learning outcomes that have been established at the national

level into curricula at the school level. National VET systems also vary in terms of training and guidance on learning outcomes offered to VET teachers and trainers. While some countries have established extensive teacher support at the national level (e.g. Lithuania and Finland), others have only ad hoc training, for example offered by teacher-training institutions (e.g. Bulgaria and France).

Taken together, these findings show that significant progress has been made in adopting national policies and administrative arrangements that position learning outcomes as a key principle/concept for the (re)design of qualifications and programmes. However, the implementation of associated changes in pedagogy remains much less clear. Teachers often exercise considerable autonomy in shaping their teaching methods; school-level autonomy is also high in many countries. These factors complicate the consistent application of learning-outcomes-based approaches. This mixed progress is illustrated in the heat map (Figure 2): bright green indicates support for the shift to learning outcomes in VET, while light green highlights barriers or untapped potential to facilitate this transit in specific areas.

Figure 2. **Heat map of how learning outcomes are embedded in national policies and support structures**

Country	Policy embedding of learning outcomes in VET	Learning outcomes in reference documents	Support and guidance offered to schools at the national level	Overall assessment of national-level support for learning-outcomes-based approaches
Bulgaria	Advancing in embedding	Advancing in embedding	Advancing in embedding	Advancing in embedding
Ireland	Firmly embedded	Firmly embedded	No data	Firmly embedded
France	Firmly embedded	Firmly embedded	Advancing in embedding	Firmly embedded
Lithuania	Advancing in embedding	Firmly embedded	Firmly embedded	Advancing in embedding
Malta	Advancing in embedding	Advancing in embedding	Firmly embedded	Advancing in embedding
Netherlands	Firmly embedded	Firmly embedded	Firmly embedded	Firmly embedded
Poland	Firmly embedded	Firmly embedded	Firmly embedded	Firmly embedded
Portugal	Advancing in embedding	Advancing in embedding	Advancing in embedding	Advancing in embedding

Country	Policy embedding of learning outcomes in VET	Learning outcomes in reference documents	Support and guidance offered to schools at the national level	Overall assessment of national-level support for learning-outcomes-based approaches
Slovenia	Firmly embedded	Firmly embedded	Advancing in embedding	Advancing in embedding
Finland	Firmly embedded	Firmly embedded	Firmly embedded	Firmly embedded

NB: 'Advancing in embedding' means that learning outcomes are generally applied but are not yet seen as foundational to developments and perspectives. In this case, they are related to policies, reference documents, and support and guidance offered to schools. 'Firmly embedded' means that learning outcomes are foundational to the main developments and perspectives.

Source: Authors.

Chapter 5.
Perspectives and practices of VET providers

Key messages

a) VET providers consider learning-outcomes-based approaches pivotal for linking VET with the labour market, and a crucial policy tool. While overall perceptions are positive, nuanced viewpoints and implementation challenges persist.
b) In most case studies, VET providers demonstrate the use of work-based learning, customised teaching to meet learners' needs and a shift towards outcomes-based approaches or competences instead of input-based provision.
c) The integration of learning-outcomes-based approaches in VET systems can facilitate communication between schools and employers, fostering alignment with industry needs and enhancing the quality and relevance of VET.
d) The case studies demonstrate the diverse approaches that schools adopt to assist teachers in implementing learning-outcomes-based curricula. Institutions strive to empower teachers and improve vocational education quality through departmental collaboration, resource accessibility and professional development opportunities. Yet teachers need more consistent resources, training and support to effectively teach using learning outcomes.

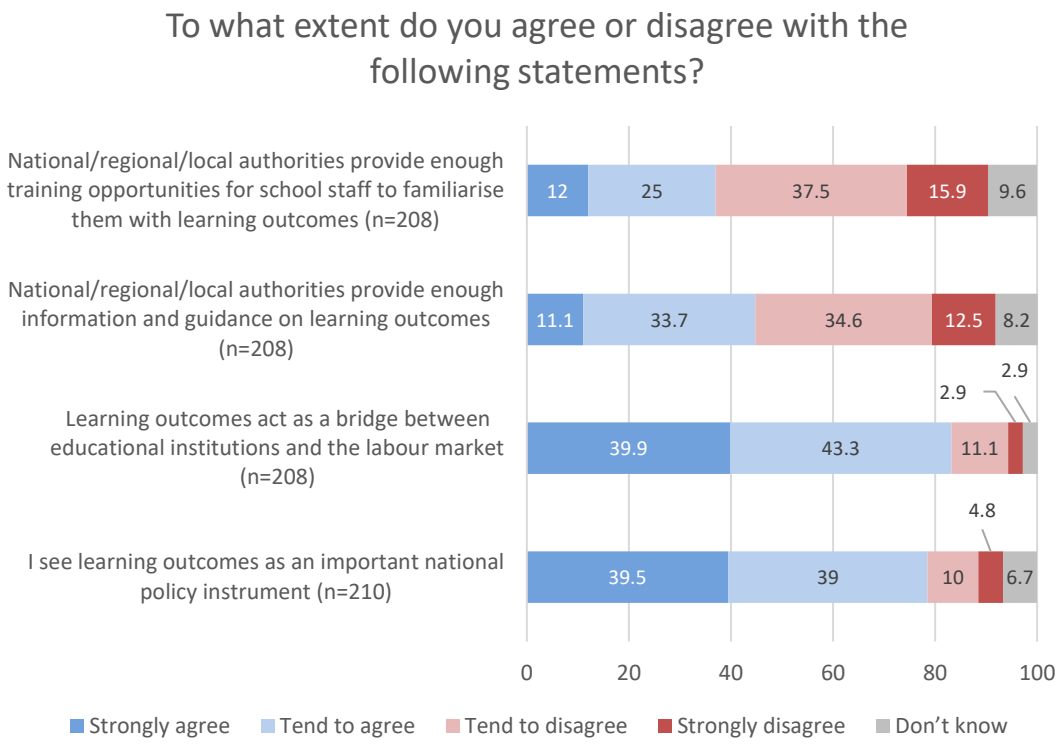
In the previous chapter, progress at the level of national policies related to the introduction and implementation of learning-outcomes-based approaches in IVET was discussed. The case studies shed light on the extent to which learning outcomes are discussed in national laws and policy documents and are integrated into occupational profiles or curricula. In this chapter, the focus shifts to the actual use of learning outcomes in IVET schools and an analysis of the effect of policy action school-based teaching. First, the school views on these national policies are presented (Section 5.1). Following this, the perspective of VET schools is discussed concerning the use of learning outcomes in planning and delivery (Section 5.2) and concerning school support to teachers (Section 5.3). The chapter ends with conclusions (Section 5.4).

The reflections of VET schools on the use of learning-outcomes-based curricula and related teaching methods were collected through interviews with VET school directors and curriculum coordinators (n = 35 across 10 countries) and a survey of school managers and curriculum coordinators (n = 358 across 10 countries).

5.1. School views and adoption of national policies on learning outcomes

Most school leaders and curriculum coordinators surveyed view learning outcomes as a connection between the VET system and the labour market (84.2 %). They also consider them an important policy instrument (78.5 %). Yet about half of them highlight the lack of sufficient training opportunities (53.4 %) and guidance (47.1 %) for teachers from national, regional or local authorities regarding learning outcomes (Figure 3).

Figure 3. **School leaders' views on learning outcomes as a policy instrument in their country (%)**



Source: Learning outcomes survey.

Overall, school leaders have a positive perception of learning outcomes. Reflecting on the views on learning outcomes' usefulness in more detail, over 80 % of surveyed school principals agree that learning outcomes make VET more learner centred, facilitate the monitoring of student progress and assessment of student achievements, help strengthen the quality of VET, and enhance teachers' professionalism and collaboration. In addition, most principals believe that learning outcomes foster flexibility and inclusivity within VET settings. While a significant proportion of school principals have positive perceptions of learning-outcomes-

based approaches, there is a notable shift in perspective concerning specific aspects. Slightly more than three quarters of respondents believe that utilising learning outcomes allows for curriculum planning based on student needs and meaningful content. Similarly, over two thirds (72.2 %) see learning outcomes as facilitating interdisciplinary approaches within their institutions, and a notable but smaller percentage (69.1 %) perceive them as facilitating the involvement of labour market stakeholders in the governance of VET.

However, amid the overall positive perception, a significant proportion of school principals have raised concerns regarding the perceived drawbacks of learning outcomes. Roughly a third believe that learning outcomes might oversimplify the learning process, while almost half express concern that learning outcomes increase bureaucratic control over the teaching methods. As one of the school principals mentioned, ‘students and schools experience little added value from this approach. It limits schools from defining for themselves what is important within a particular profession. It seems learning outcomes mainly have a policy-related monitoring function.’ More than one third of surveyed principals criticise the level of detail of learning outcomes descriptions, finding them either too restrictive or vague.

In summary, the analysis of school principals’ perspectives on learning outcomes in VET indicates a broad consensus on their positive impact, while also revealing nuanced viewpoints and concerns related to their implementation.

The case studies confirm the survey analysis to a considerable extent, emphasising that respondents do not question the need for national policies to support the implementation of learning-outcomes-based approaches, nor do they question its added value for VET delivery. Informants also agree there are practical challenges to the implementation of learning-outcomes-based approaches.

In several countries studied, there is broad support for using learning outcomes at the school level, as they form the foundation for various educational approaches, such as competence-based learning, learner-centred teaching and work-based learning. The learning-outcomes-based approaches are perceived as closely aligned with the key VET objectives, ensuring that students acquire the skills and competencies relevant to the labour market. In the Netherlands, for instance, the two VET schools examined indicated that the qualification files (which state the learning outcomes) are the guiding principles concerning the content of the VET teaching and learning, and schools have autonomy in how they organise the VET programmes and what educational vision they apply. Within the educational models that schools apply, the role of work-based learning and self-directed learning is significant.

In Finland, throughout the field of VET providers, the acceptance of the competence-based approach in VET is very high and it is seen as a functioning and suitable approach in VET provision. According to the two case studies conducted in Finland, the learning-outcomes-based approach is deeply embedded in the educational activities of VET institutions. VET providers see the national vocational qualification requirements and the overall competence-based approach in VET as very good and suitable tools for their own provision of VET. National vocational requirements are considered to be very well structured, and competence descriptions (learning outcomes) are highly relevant to working life.

In France, school managers perceived changes related to the implementation of the learning-outcomes-based approach not as sudden or dramatic but rather as a continuation of the 'traditional' approach (since the 1980s) to VET in France. School managers view the learning-outcomes-based approach as a tool to narrow the gap between the national education system and professional fields. Moreover, several interviewees emphasised that using the learning-outcomes-based approach provides a common language to interpret the reference frameworks provided by the ministry.

In Lithuania, while attitudes towards learning outcomes are generally positive, interviewees highlight that national policies for implementing them can be challenging. School managers note that each person may understand learning outcomes differently based on their role. For instance, teachers and administrative staff are fully aware of the concept and understand learning outcomes as referring to knowledge and skills. On the other hand, learners usually interpret learning outcomes as grades received and do not link these explicitly with competences. This might limit the influence of learning outcomes on student experience.

In Poland as well, school directors see the learning-outcomes-based approach as facilitating the planning and organisation of the school's work. However, certain conditions specified in the curriculum are rapidly outdated due to technological changes and no longer meet the current labour market requirements. This is particularly true of the increasingly widespread use of information technology. Operations and resources shifting to cloud computing, 3D printing and artificial intelligence are just a few examples of technologies that graduates of vocational schools will encounter in their work. According to the directors and teachers, these areas are addressed inadequately in the core curriculum.

The concern about learning outcomes' descriptions becoming outdated is a well-known challenge in many countries, and can be solved by describing learning outcomes in a more general, overarching manner. This, however, runs the risk of being less useful in informing VET delivery, and in turn leads to the development of additional detailed documents describing learning outcomes. This could be

interpreted as a return to an input focus, when the more detailed documents describe the knowledge components that a student needs to understand.

In conclusion, school leaders and curriculum coordinators generally view learning outcomes positively, recognising their importance in connecting VET with the labour market and enhancing educational quality. They appreciate the learner-centred approach and improved monitoring of student progress. However, concerns include insufficient training for teachers, potential oversimplification and increased bureaucratic control. Challenges also arise from the need to update learning outcomes to keep pace with technological advancements. Despite broad support for national policies, practical implementation issues and varied stakeholder interpretations highlight the need for ongoing adaptation and support.

5.2. Planning and delivering learning-outcomes-based curricula

The planning and delivery of curricula differ between input-based and outcomes-based learning. In input-based learning, the planning is generally straightforward in terms of having courses that students will have to follow, usually in classroom-based settings. In contrast, the planning and delivery in outcomes-based learning can differ between students, based on what each student needs to achieve. As there is more emphasis on practical application and work-based learning, the planning and delivery is less straightforward than in the input-based approach. The following sections discuss, first, the delivery of curricula, taking into account the level of autonomy allowed for VET schools, and, second, engagement with labour market stakeholders based on the case studies and the survey results.

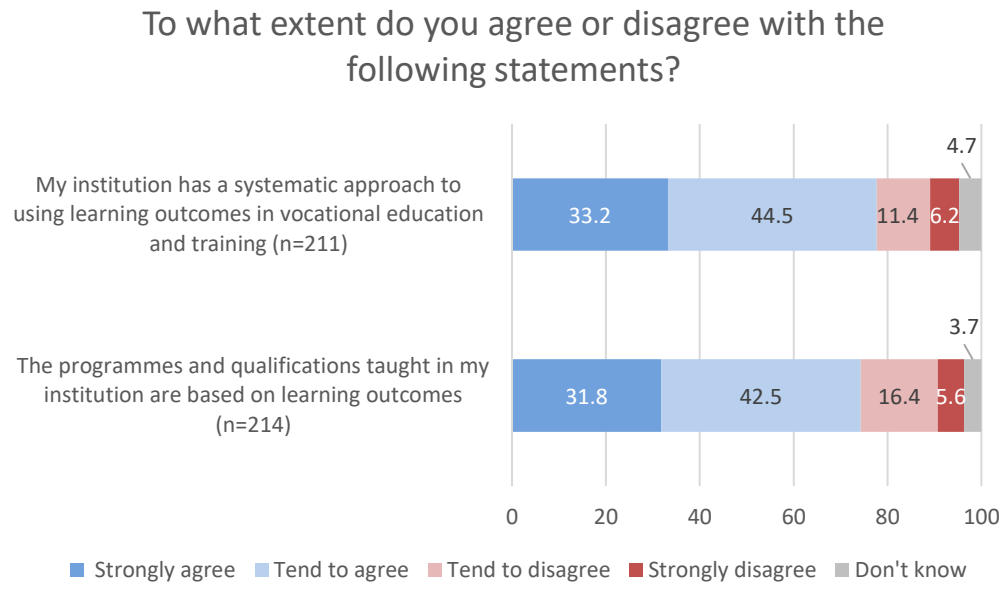
5.2.1. Delivering learning outcomes and autonomy of schools

The way schools use the learning outcomes and how much autonomy they have in aligning the VET programmes to students' needs vary. Autonomy and the use of learning outcomes are related, since schools with more autonomy can personalise learning pathways, collaborate with employers and apply student-centred approaches. However, this depends on schools' discretion. In systems where schools have less autonomy, national policies can strongly push for student-centred VET programmes, which directly affects the entire system. In such cases, the willingness of individual VET schools to adopt learning outcomes is not a deciding factor in implementing the change.

The survey of school principals and curriculum coordinators shows that a majority (77.7 %) of the VET institutions have taken a systematic approach to using

learning outcomes in VET. A similar share (74.3 %) indicate that the programmes taught are based on learning outcomes (Figure 4).

Figure 4. **School leaders' views on learning outcomes implementation in their VET institutions (%)**



Source: Learning outcomes survey.

This overall positive assessment of using learning outcomes by schools is confirmed in the case studies. None of the case study schools indicated that learning outcomes were not used.

The use of learning outcomes can affect the way VET programmes are delivered. It could open up more personalised learning pathways, shift delivery modes towards more work-based learning, promote integration of subjects, change where learning takes place and increase the use of modular approaches in the VET programme. While it is difficult to indicate a causal relationship between the introduction of learning-outcomes-based approaches in VET and a more learner-centred, work-based-learning-oriented and modular type of delivery, the country case studies do signal that in many countries schools and teachers have the freedom to structure and plan the VET programmes in accordance with learner needs, and this is facilitated by learning outcomes. This obviously differs depending on the level of autonomy granted to schools and teachers.

In countries with a high level of school autonomy, such as Ireland, the Netherlands and Finland, teachers are free to design learning pathways, so long as they prepare learners for the final assessment of achieved learning outcomes. In Finland, national vocational qualifications outline learning objectives, leaving

pedagogical decisions to the VET provider and educational staff. Based on national vocational requirements, VET providers and educational teams design a local implementation plan for the competence assessment. This autonomy allows VET providers and teachers to determine independently how goals are to be included and achieved, including pedagogical methods and learning locations. Collaboration with students and workplace instructors ensures alignment with competence demonstrations. While VET providers appreciate the adaptability of national requirements, there is a need for more flexibility in utilising competence modules across different qualifications, reflecting a desire for more flexible VET structures. In Ireland, colleges contribute to curriculum planning by establishing frameworks for learner-centred teaching and assessment methods. Institutions like Bray Institute of Further Education promote a collaborative approach, capitalising on the teaching staff's collective knowledge to enhance teaching practices. Flexibility is encouraged, allowing teachers to reorganise award content, including learning outcomes, to suit student needs and ensure logical sequencing. This collaborative ethos fosters continuous improvement and innovation in vocational education delivery.

In other countries (e.g. Bulgaria, France, Lithuania, Malta, Poland, Portugal and Slovenia), when it comes to delivering VET, there is a tendency to have a more top-down approach in which schools and teachers are more limited in self-designing the learning programmes to reach the stated learning outcomes. In France, VET teachers typically adhere to prescribed learning outcomes without substantial modifications, and can potentially take advantage of autonomy in their curriculum planning during the school year. However, there is a perception of rigidity due to requirements from the MEN, including mandated competence blocks for diplomas and the implementation of new curriculum integration measures like 'co-interventions' and the *chef-d'oeuvre* project. Co-intervention hours involve two teachers delivering subjects, while the *chef-d'oeuvre* is a collective or individual project assessed at the end of the training cycle. Public VET schools and *centres de formation d'apprentis* tend to structure curricula around subjects rather than competences, to assess learners on a continuous basis and to translate results into grades – all of which ultimately limit flexibility in curriculum planning.

Another example of where the autonomy of VET schools is slightly constrained is Lithuania. In Lithuania, VET programmes are centrally developed and detailed modules are published on the QVETDC website, encompassing competences, learning outcomes and teaching recommendations. While VET providers can adjust programmes by up to 15 %, interviews suggest this is rarely done due to ambiguity over the permissible changes. Consequently, adjustments typically involve revising teaching contents rather than altering prescribed

competences. Despite this, VET teachers enjoy significant autonomy in delivering the curriculum, with flexibility in teaching methods, assessment and materials selection. While some national programmes recommend literature, teachers are free to choose their own resources, reflecting a hands-on approach to curriculum delivery. At the school level, there are no strict rules as to what teaching resources and approaches VET teachers should use. VET practitioners bear the primary responsibility for selecting the most appropriate teaching and learning methods and materials, and have a lot of freedom to choose what they see as best fitted to ensure that intended learning outcomes are achieved.

Similarly, in Portugal, in general, trainers and tutors have the autonomy to choose relevant methods, activities and projects, ensuring their alignment with the policy of the centre/school and complying with the curriculum and learning outcomes defined.

A last interesting illustration is from Poland, where schools have autonomy, but in practice they follow nationally developed teaching programmes. The school teaching programme serves as the foundation for the school's operations, comprising curricula for all occupations covered. It must include general goals, occupation-specific outcomes and outcomes common to all occupations, like workplace safety and foreign language skills. While schools have the autonomy to develop their own curricula, most opt for sample programmes provided by institutions like the Education Development Centre. However, selecting a programme does not conclude the process; implementation requires careful planning to align with the school's capacities. Approval of the programme rests with the school director at the teacher's request. While it outlines precise learning outcomes, it allows broad flexibility in programme implementation, empowering teachers to choose methods as needed. Teachers note significant variation in classroom dynamics, making planning challenging. Experienced teachers can adapt, but less experienced ones may struggle. Thus, fostering opportunities for peer learning and sharing experiences is essential.

All in all, the country case studies show a wide range of practices in how VET schools deliver the VET programmes and which choices they can make to deliver the learning outcomes. Many of the practices studied indicate the use of work-based learning, tailoring the provision to the needs of learners (being flexible) and, in most case studies, a move away from subject-based (input-based) delivery to focusing on learning outcomes or competences.

5.2.2. Learning outcomes and engagement with employers

Learning outcomes are designed to be focused on what a student should know, what they should be able to do, and their value on the labour market after

completing a VET programme (Cedefop, 2017). Therefore, the learning outcomes need to be closely linked to the language used by employers. In principle, this approach should ease the communication and engagement of employers in the governance and delivery of VET programmes.

The country case studies show that the integration of learning-outcomes-based approaches in VET systems across various countries has been instrumental in facilitating communication between VET schools and employers/companies. The adoption of learning outcomes frameworks has enabled clearer articulation of the skills and competences required by students in the workplace, thus bridging the gap between educational institutions and industry needs. The case study descriptions below focus on how companies fine-tune the VET programmes to better respond to their needs.

Several case studies revealed that learning outcomes are used to ease communication with employers, facilitating the coordination of work-based learning ([16]), providing quality assurance and fine-tuning the provision of VET. During a school visit in the Netherlands, the school management emphasised that the learning outcomes framework is helpful in discussions with childcare companies and primary schools regarding the specific skills students need to acquire during work-based learning. However, challenges persist in ensuring the quality of workplace learning due to the diverse range of workplaces and mentors involved and the lack of school staff to monitor the process.

Similarly, in Bulgaria, both VET schools that were visited maintain partnerships with numerous companies, which provide valuable feedback on curriculum development and vocational training. While employers may not directly influence learning outcomes descriptors, their input informs the alignment of VET programmes with industry standards and practices.

In Finland as well, two schools that were visited engage in regular dialogue with business and industry organisations to ensure the relevance and quality of VET provision. Working-life forums provide a platform for discussing current issues and renewing qualification requirements, while training for workplace trainers enhances the quality of workplace learning and competence assessment. Feedback mechanisms, including surveys among cooperation networks, inform continuous improvement efforts at both the local and national levels.

In Lithuania, employers play a more active role in curriculum planning and delivery, particularly in apprenticeship programmes and internships. Feedback from employers informs discussions on improving student competences and

([16]) This dimension is more exhaustively explored in a forthcoming Cedefop publication on the influence of learning-outcomes-based curricula in company training (the part of apprenticeship programmes that takes place in companies).

programme content. In addition, at school level, additional arrangements are made to support learning that takes place in authentic work settings. For instance, one of the visited schools had an operational plan for the 2022/2023 school year that encouraged teachers to conduct training in authentic work settings such as hotels, museums, restaurants and other businesses, fostering real-world learning experiences. Overall, the plan underscores the importance of creating learning environments where students can develop both professional and general competences effectively.

In other case studies, the involvement of companies is slightly at a distance and their engagement is more in advisory committees to identify labour market needs than in direct interaction with schools and teachers to facilitate the delivery of VET programmes. However, also in this context, the case studies recognise that learning outcomes play a role in easing discussions on the content of VET qualifications. In France, for instance, collaboration between schools and employers is facilitated through advisory professional commissions, although employers typically do not influence curricula or learning outcomes descriptors directly. Teachers and trainers strive to adapt lessons based on industry insights. Despite the perception of a mismatch between the education system and the professional world, efforts are made to align learning goals with workplace requirements.

Slovenian schools like one of those visited strive to deepen strategic partnerships with employers, recognising their crucial role in shaping the curriculum and preparing students for the labour market. Despite ongoing efforts to improve cooperation, formal channels for collaboration and curriculum development with industry partners are still evolving.

In Malta, MCAST holds periodic meetings with employers, and learning outcomes are designed to reflect the employers' and labour market demands. The involvement of employers in delivery is limited.

Overall, the integration of learning-outcomes-based approaches in VET systems facilitates communication between schools and employers, fostering alignment with industry needs and enhancing the quality and relevance of VET.

5.3. School support to teachers delivering learning-outcomes-based curricula

As concluded in the first research publication (Cedefop, 2024), VET professionals often lack national or local training and resources to support the use of learning outcomes. Consequently, VET institutions must step in to assist teachers in implementing outcomes-based curricula. As indicated in that publication, how

schools and teachers use learning outcomes in planning and delivery of VET programmes depends on system-related characteristics such as the level of autonomy, the extent to which VET programmes are prescribed for schools and the level of national support provided to schools and teachers. In addition, at the school level, the extent to which schools and teachers can work with learning outcomes to make the VET programmes more learner centred, more oriented towards work-based learning and modular (signalling a learning-outcomes-based approach) depends on the school's vision and approach, the available financial resources, existing infrastructure and – last but not least – staff capacities. The case studies showcase two support approaches: institutional strategies and support; and teacher collaboration and professional development.

In terms of institutional support, a significant majority of school leaders surveyed, approximately 73.1 % (Learning outcomes survey, *n* = 212), report that their institutions do provide teachers with resources to incorporate learning outcomes into assessments. In addition, a slightly lower but still substantial percentage (68.4 %) indicate that institutions support teachers in planning and delivering education based on learning outcomes. This suggests a recognition of the importance of aligning teaching practices with intended learning outcomes. Moreover, the data reveal that a significant proportion of institutions do not provide essential support. According to surveyed leaders in VET, 21.7 % of institutions do not offer materials for utilising learning outcomes for assessment, indicating a deficiency in crucial resources. A concerning 26 % of institutions do not provide instruction on integrating learning outcomes into lesson preparation and delivery, potentially hindering effective teaching practices.

The case studies provide insightful perspectives on the types of support schools offer for teachers implementing and designing learning-outcomes-based curricula. In the Netherlands, VET programme design and delivery are managed at the department level, with small teams of teachers and managers responsible for a cohesive approach. This ensures that support for teachers is closely aligned with their individual needs. Moreover, online learning platforms and peer-developed resources supplement teaching practices, offering valuable assistance to educators.

Similarly, in Finland, VET providers prioritise support measures and guidelines for teacher teams and individual educators. This includes access to online learning databases, best practice examples and various professional development opportunities. Dedicated development departments oversee the implementation of overall guidelines and procedures, ensuring alignment with institutional objectives and teacher needs. The availability of support was

highlighted during focus group discussions and interviews, emphasising the commitment to facilitating teacher growth and development.

In Lithuania, VET schools provide limited specific guidance materials for delivering learning-outcomes-based curricula. This is attributed to the existence of national-level publications. Instead, schools prioritise teacher collaboration and the sharing of best practices. Internal file-sharing systems facilitate the exchange of teaching materials and methods among educators, fostering cooperation and collective efforts to achieve desired outcomes.

In Portugal, teachers in VET centres also have access to shared documents and training materials, promoting collaboration and discussion among colleagues. Working in teams, trainers design and implement shared activities and projects, enhancing the overall learning experience. This collaborative approach emphasises the importance of teamwork and collective responsibility in delivering effective vocational education.

Overall, these case studies highlight the diverse approaches taken by schools to support teachers in implementing learning-outcomes-based curricula. Whether through encouragement of departmental collaboration, access to resources or professional development opportunities, each institution strives to empower educators and enhance the quality of vocational education.

In other countries, the case studies found less structured support. For instance, in France, schools generally seek to provide support and guidance to teachers (not only related to learning outcomes). This is done mostly on an ad hoc basis, meaning that, if there are several requests from teachers about a specific topic, school managers will try to address this need through a seminar, a workshop or a consultation with an external expert (e.g. an inspector from the MEN). This means that support for applying leaning outcomes is only offered if a number of teachers ask for it.

In Poland, school directors aim to support teachers in applying learning-outcomes-based methods, and prioritise student engagement. Yet limited time for organised training due to teachers' heavy workloads and external commitments hinders effective support. Pedagogical guidance often occurs informally through ad hoc and inconsistent discussions and peer learning.

The main institutional school support mechanism for teachers is through professional development on using learning outcomes and associated pedagogies (e.g. learner-centred approaches). The survey shows that 62.1 % of institutions offer special training for teachers on how to teach a curriculum based on learning outcomes; the remaining percentage implies that a considerable portion of teachers may not be adequately equipped with the specific training. Further, a substantial 32.7 % of institutions do not offer teachers the opportunity for training

on how to teach a curriculum based on learning outcomes. The case studies show many examples of professional development opportunities, but these are rarely specifically oriented to support teachers in learning-outcomes-based approaches ([17]).

In summary, while there has been progress in supporting teachers to incorporate learning-outcomes-based approaches, the trends suggest a need for more comprehensive and consistent efforts to provide resources, training and support to ensure that VET professionals can effectively implement outcomes-based curricula and pedagogies in their teaching practices. While CPD is offered, there is a lack of specific CPD on the use of learning outcomes.

5.4. Conclusions

This chapter presents the use and implementation of learning outcomes from the perspective of VET providers. School leaders and curriculum coordinators

([17]) The following are some country examples of how CPD does not address learning outcomes.

- In Lithuania, teachers in all visited schools noted that they felt encouraged to take up training, be it related to their technical competences in the occupational field or to pedagogical/didactic/andragogical knowledge and skills. Schools seem to allow teachers freedom to choose opportunities they feel they need, and support teacher participation in them by rearranging the teachers' schedules as needed and compensating for hours spent in such training. None of the teachers approached could mention any recent examples of training that focused on learning outcomes explicitly, however.
- In Malta, the secondary VET school organises professional development sessions for the teachers, to keep them updated with sectoral practices that they are teaching as well as with pedagogical developments, in planning and in the assessment of the VET curricula that they are implementing. There is no explicit reference to using learning outcomes.
- In Poland, schools support the professional development of teachers in enhancing their competences related to their subject area specialisation. Directors allocate funds to finance such professional courses. They assume that highly specialised competences and up-to-date knowledge in a given field build up the authority of a teacher, enabling them to refer to practical applications of skills developed and to go beyond the scope of core curriculum requirements. Teachers interviewed said that learners appreciate this type of experience.
- In Ireland, in both institutions visited, the senior management team supports CPD throughout the year. While CPD aligns with principles like universal design for learning, it is not explicitly focused on learning outcomes or learner-centred methods. CPD is tailored to individual teacher needs, without formal planning documents or allocated budgets. Teachers engage in non-formal learning such as peer-to-peer sharing and video sessions. However, finding cover for classes remains a challenge.

generally view learning outcomes positively, recognising their role in connecting VET to the labour market and enhancing educational quality. Despite this, they report significant challenges, such as insufficient training and bureaucratic complexities. Schools with greater autonomy are able to tailor curricula to student needs better, although the extent of this autonomy varies widely across countries. Engagement with employers has also improved through the use of learning outcomes, facilitating better alignment between education and industry needs. Many institutions provide resources and support for teachers, but there is a notable lack of specific professional development focused on learning-outcomes-based approaches, underscoring the need for more comprehensive and consistent support.

To conclude, the following country summaries can be provided based on the visits to the VET providers in the case study countries.

(a) **Bulgaria**. Despite systemic support for integrating learning outcomes in VET, implementation faces several challenges. Undefined roles and responsibilities at the national level, coupled with the lack of systematic approaches to curriculum design, hinder the seamless adoption of learning-outcomes-based curricula. Nevertheless, VET schools that were visited are striving to incorporate learning outcomes in teaching and assessment practices within the bounds of their autonomy, demonstrating adaptability and resilience in navigating the evolving educational landscape.

(b) **Finland**. Competence-based VET enjoys a long-standing tradition in Finland, with a comprehensive approach that spans all phases of qualification development and implementation. From personalised learning paths to recognising prior learning, Finnish VET embraces the principles of competence-based education. This approach, embedded in the national vocational qualification requirements, emphasises practical application and collaboration with industry, ensuring graduates are equipped with the skills and competencies needed for success in the workforce.

(c) **France**. Despite the lack of robust support mechanisms, French schools are striving to adopt competence-based curricula in VET. Challenges persist in fully integrating competences into teaching practices, underscoring the need for greater guidance and assistance from inspection bodies. As schools navigate this transition, ongoing support from inspectors is crucial to help educators effectively implement competence-based approaches and enhance student learning outcomes.

(d) **Ireland**. Learning outcomes have long been a feature of VET in Ireland and, while there has never been a strong, explicit connection made between learning outcomes and pedagogies at the national policy level, collegiate

approaches and a focus on learner-centred methods characterise VET at the college level in Ireland. VET school managers indicate that teachers embrace practical and active teaching methods, supported by CPD and technological integration. This collaborative environment fosters innovation and flexibility in teaching, empowering learners to take an active role in their education and prepare for success in the ever-changing labour market.

(e) **Lithuania**. Learning outcomes play a pivotal role in shaping VET in Lithuania, facilitating effective planning, flexibility and the integration of theory and practice. While VET providers have some autonomy in adapting learning outcomes, quality assurance measures ensure consistency and excellence across programmes. Providers remain committed to delivering high-quality education that meets the needs of students and aligns with labour market demands.

(f) **Malta**. VET providers in Malta demonstrate a positive acceptance of the learning-outcomes-based approach, with teachers and senior managers displaying a strong understanding of its principles. The emphasis on student learning in planning, teaching, and assessment is evident, with teachers finding learning-outcomes-based curricula accessible and user-friendly. As VET providers continue to embrace this approach, the alignment of assessment criteria with intended learning outcomes remains a key focus area for enhancing student outcomes and ensuring quality education delivery.

(g) **Netherlands**. The learning-outcomes-based approach is deeply entrenched in the Dutch VET system, with schools enjoying considerable autonomy in structuring VET programmes. This autonomy extends to lower operational levels, where educational teams are tasked with designing programmes in line with industry practices. Notably, there is a growing emphasis on self-directed learning, flexible learning methods and increased work-based learning opportunities. The learning-outcomes-based approach aligns well with these developments by supporting personalised learning paths, fostering flexibility and strengthening the connection between education and the world of work.

(h) **Poland**. Although the concept of learning outcomes was introduced in 2012, Poland faces challenges in fully integrating them into VET due to the need to develop teacher skills and outdated curricula. Schools respond by collaborating closely with employers to bridge the gap between education and the labour market, ensuring that learning outcomes remain relevant and responsive to industry needs.

(i) **Portugal**. The adoption of learning outcomes in VET in Portugal is gradual, with some stakeholders still unfamiliar with the approach. Internal documents aid in understanding and implementation, supporting VET practitioners in

navigating the curriculum outlined in the NCQ. Despite challenges, there is a growing recognition of the benefits of learning outcomes, particularly in enhancing student learning and assessment practices.

(j) **Slovenia**. While the legal framework in Slovenia supports a learning-outcomes-based approach to VET, implementation at the school level faces obstacles. Limited stakeholder engagement and governance arrangements hinder the effective integration of learning outcomes into curriculum design and delivery. As schools strive to overcome these challenges, greater collaboration and support from relevant stakeholders are essential to ensure the successful adoption of learning-outcomes-based curricula.

Taken together, these findings reveal that the VET providers visited are generally supportive of furthering the implementation and use of learning-outcomes-based approaches in VET, but that more could be done in offering support and professional development in concretely working with learning-outcomes-based approaches in VET delivery. This is well illustrated in Figure 5, where bright green indicates the arrangements enabling the shift to learning outcomes in VET, whereas light green indicates those hindering it or at least showing unused potential to support it.

Figure 5. **Heat map of how learning outcomes are embedded at the VET provider level at selected schools**

Country	School management adoption of national policies on learning outcomes	Planning and delivery of learning-outcomes-based curriculum ([a])	School support to teachers delivering learning-outcomes-based curriculum ([b])	Overall assessment of school support to learning-outcomes-based approaches
Bulgaria	Overall school management support	Signals of learning outcomes are somewhat visible	Limited level of support (institutional and professional development)	Advancing in embedding
Ireland	Overall school management support	Signals of learning outcomes are highly visible	Moderate level of support (institutional and professional development)	Firmly embedded
France	Overall school management support	Signals of learning outcomes are somewhat visible	Limited level of support (institutional and professional development)	Advancing in embedding

Country	School management adoption of national policies on learning outcomes	Planning and delivery of learning-outcomes-based curriculum ([a])	School support to teachers delivering learning-outcomes-based curriculum ([b])	Overall assessment of school support to learning-outcomes-based approaches
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Malta	Overall school management support	Signals of learning outcomes are somewhat visible	Limited level of support (institutional and professional development)	Advancing in embedding
Netherlands	Overall school management support	Signals of learning outcomes are highly visible	Moderate level of support (institutional and professional development)	Firmly embedded
Poland	Overall school management support	Signals of learning outcomes are somewhat visible	Limited level of support (institutional and professional development)	Advancing in embedding
Portugal	Overall school management support	Signals of learning outcomes are somewhat visible	Moderate level of support (institutional and professional development)	Advancing in embedding
Slovenia	Overall school management support	Signals of learning outcomes are somewhat visible	Limited level of support (institutional and professional development)	Advancing in embedding
Finland	Overall school management support	Signals of learning outcomes are highly visible	High level of support (institutional and professional development)	Firmly embedded

([a]) For the dimension of planning and delivery of learning-outcomes-based curriculum, a distinction is made between countries where the observations identified highly visible signals of learning outcomes use and those where the signals were only somewhat visible. Table 3 of this report is used to look for signals that indicate a learning-outcomes-based approach in VET. Those countries where the observations identified more signals are classified as highly visible. Those countries where the observations identified only a few signals are classified as somewhat visible.

([b]) For the dimension of school support to teachers delivering learning-outcomes-based curriculum, a distinction is made between limited, moderate and high levels of support. This classification is based on what the observations in the VET schools identified in terms of support.

Source: Authors.

Chapter 6.
Perspectives and practices of teachers and trainers in school-based VET

Key messages

a) VET teachers across the 10 case study countries studies mostly view learning outcomes positively, seeing them as crucial for bridging theoretical and practical skills, aligning with employer needs and fostering student motivation and clarity. Some issues related to the way learning outcomes are formulated were also identified.
b) The overwhelming majority of the survey respondents indicate that they use learning outcomes in teaching, planning and delivering, and assessing student performance.
c) While most of the VET teachers and trainers surveyed and interviewed believe they have sufficient autonomy to employ learning outcomes in planning and delivering teaching, there is a notable discrepancy in teacher autonomy when it comes to choosing assessment approaches and criteria, to varying degrees across countries.
d) The survey uncovered a lack of comprehensive initial and continuous training on learning outcomes, at least for around half of the VET teachers and trainers surveyed. The focus group results confirmed the need for additional guidelines on learning outcomes in most countries studied.

This chapter explores the views and experiences of VET teachers and trainers. The sections below cover aspects related to their perceptions of the usefulness of learning outcomes and the actual use and influence of learning outcomes on teaching and training. The chapter also covers issues related to teacher autonomy in using learning outcomes, as well as the guidance provided to VET teachers and trainers on this topic.

6.1. Views on learning outcomes

The case studies revealed that VET teachers in most countries covered are familiar with learning-outcomes-based approaches. While in some VET schools visited, such as in Portugal and Slovenia, teachers were not familiar with the terminology of learning outcomes, once the concept of learning outcomes was explained they fully recognised it and confirmed that they apply it in their teaching. Teachers' limited awareness of learning outcomes may be attributed to the national curricula using the terms 'learning objectives' in Slovenia and 'general objectives' in Portugal. In Portugal, only qualifications and curricula in two sectors (commerce

and marketing, and tourism and leisure) are structured using a learning-outcomes-based approach. Focus groups and interviews with VET teachers in the 10 case study countries gathered a wide range of views on learning outcomes, with mostly positive perceptions. In Bulgaria, France and Portugal, teachers emphasised learning outcomes as a link between theoretical and practical competences, and between VET and employers' needs, and called it a practical, results-oriented approach.

'Using the learning outcomes approach has been very helpful for young people in the sense that they quickly realise what they are going to find when they enter the labour market. It makes it much easier for them to integrate into the working environment; there will be less shock as they clearly understand what is expected' (from the interview with a VET trainer in Portugal).

In the Netherlands, teachers surveyed and interviewed have a positive view, with a comprehensive understanding of both specific module outcomes and overall learning outcomes from qualification files. Similarly, in Ireland, where the learning-outcomes-based approach is well established and taken for granted, teachers did not express any criticism of it. In Finland, teachers said that they find learning outcomes descriptors in the national vocational qualification requirements very helpful, clear and easy to use in their daily work. In teachers' opinion, the learning-outcomes-based approach enhances transparency for students, provides clear objectives and fosters motivation and self-directed learning. In Poland, teachers emphasised the advantages of the approach, as it provides clear educational goals, fosters holistic development of competences, enhances teacher cooperation, allows autonomy in teaching methods, facilitates dialogue with employers and supports clear communication with learners about their future prospects. The Lithuanian case study captured a range of positive feedback regarding the impact of learning outcomes on students, teachers and the VET system in general. Overall, teachers expressed satisfaction with national definitions of learning outcomes in Lithuania's VET programmes, noting their clarity and positive impact on student mobility, the establishment of common standards and the guidance they provide to new teachers embarking on their pedagogical careers. Similarly, in Malta, Portugal and Slovenia, during school visits, learning outcomes were noted as helping new lecturers plan their teaching.

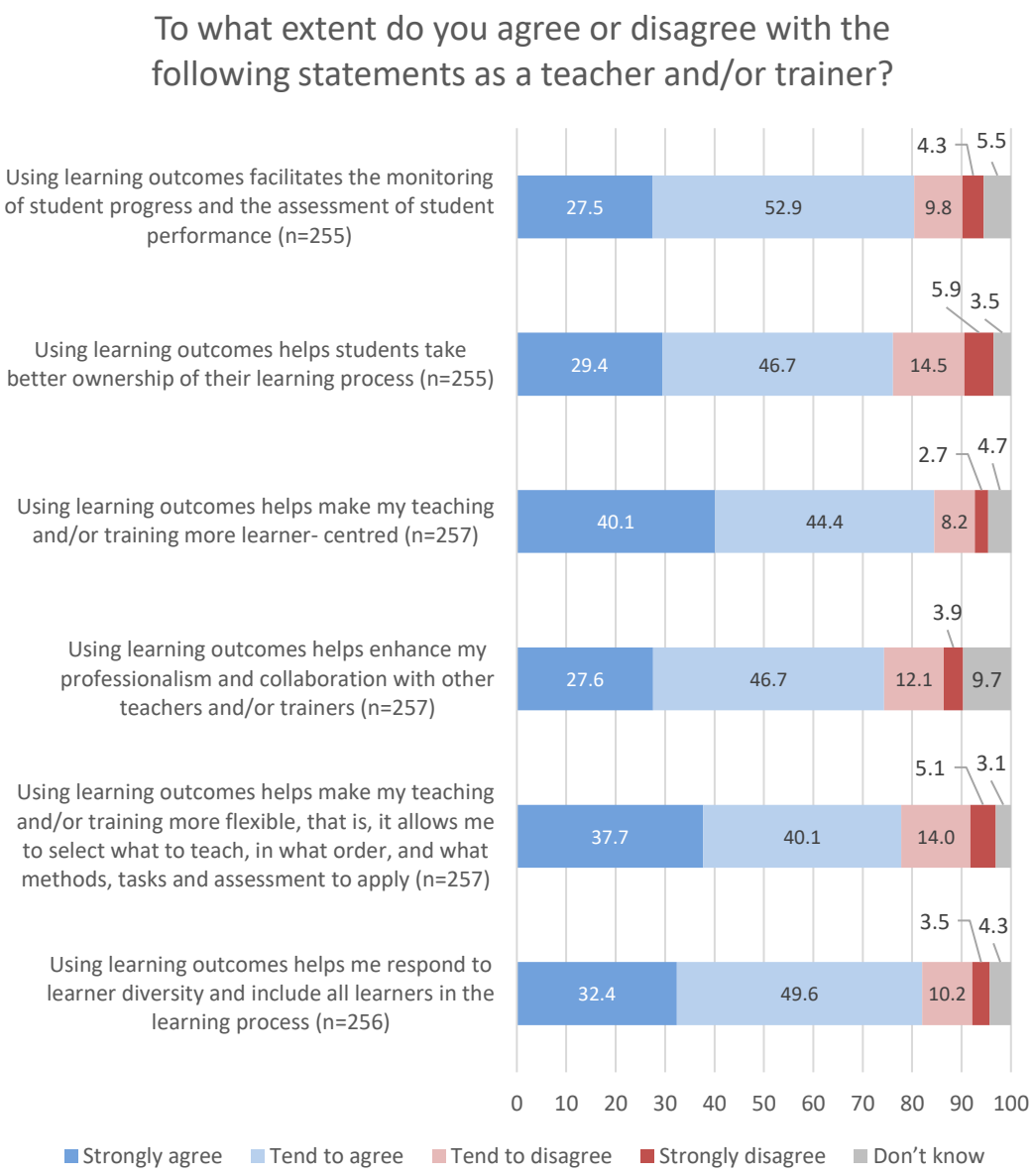
The survey of VET teachers and trainers quantified the abovementioned opinions and revealed that they have mixed feelings about learning outcomes descriptors in reference documents and the overall usefulness of the approach.

VET teachers and trainers seem to assess learning-outcomes-based approaches along different dimensions. Survey data in Figure 6 show that VET teachers and trainers find learning outcomes to be highly beneficial when it comes

to learner engagement. A large majority of respondents ‘strongly agree’ or ‘tend to agree’ that using learning outcomes makes their teaching more learner-centred (84.5 %), helps them respond to learner diversity, includes all learners in the learning process (82 %) and helps students take better ownership of their learning (76.1 %).

The second popular perspective on learning outcomes concerns benefits for teachers and trainers. Most respondents ‘strongly agree’ or ‘tend to agree’ that using learning outcomes ‘facilitates the monitoring of student progress and the assessment of student performance’ (80.4 %), ‘makes [their] teaching and/or training more flexible’ in terms of methods, the choice of content and assessment approaches (77.8 %) and ‘helps enhance [their] professionalism and collaboration with other teachers and/or trainers’ (74.3 %). This trend indicates a positive perception among VET teachers and trainers, highlighting the advantages they see in employing learning outcomes, including improved assessment, teaching flexibility and professional development through collaboration.

Figure 6. **Teachers' and trainers' perceptions of using learning outcomes in their work (%)**

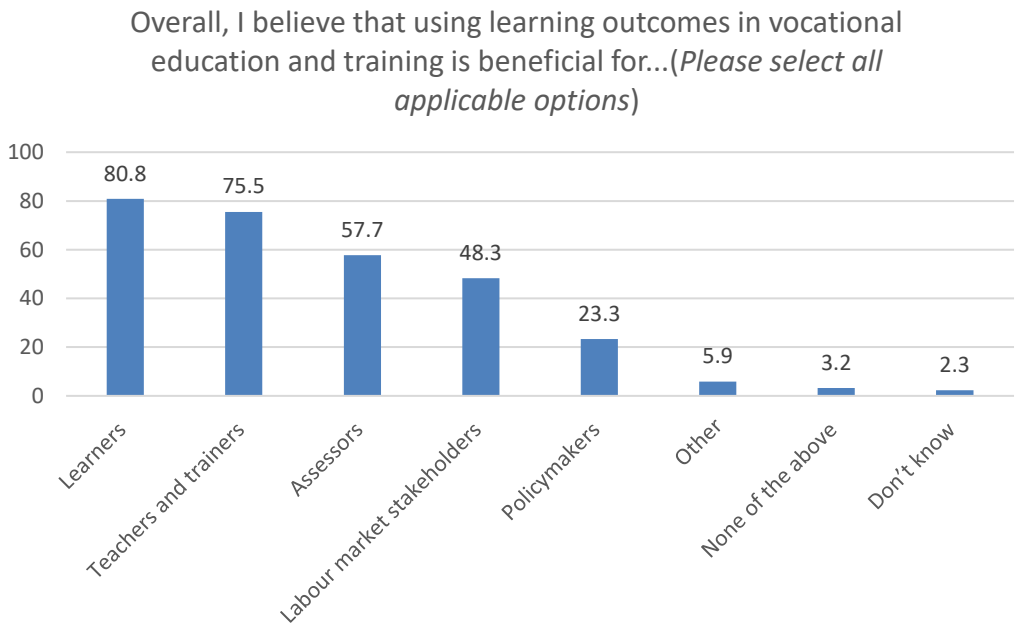


Source: Learning outcomes survey.

The significance of learning-outcomes-based approaches for students and teachers is highlighted by the fact that respondents identified these two groups as the ones who benefit most from such approaches (Figure 7). When asked to elaborate on their choice, the survey respondents primarily noted that learning-outcomes-based approaches add clarity, structure and transparency to the teaching process both for the students and for the teachers/trainers, and allow them to indicate goals and have a clear vision of how to achieve them and tailor

learning. Some also noted that learning-outcomes-based approaches facilitate internal collaboration among the teaching staff and external collaboration with labour market representatives. In general, respondents note that learning-outcomes-based approaches provide a clear framework and guidelines that allow the students, teachers/trainers and employers to be on the same page.

Figure 7. **Teachers' and trainers' views on who benefits from learning outcomes (*n* = 437, % of responses)**



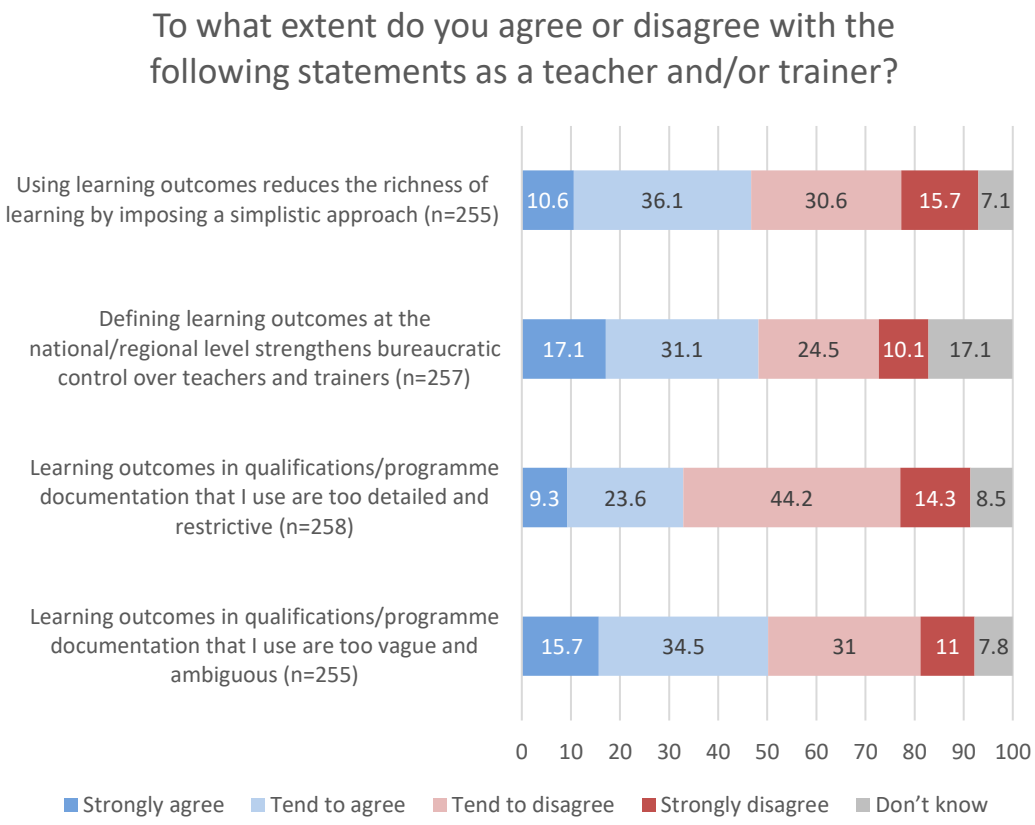
Source: Learning outcomes survey.

Despite recognising the usefulness of learning-outcomes-based approaches, VET teachers and trainers often disagree with how learning outcomes are defined in the reference documents and are to be implemented. For instance, more than half of the respondents (58.2 %) believe that 'defining learning outcomes at the national/regional level strengthens bureaucratic control over teachers and trainers'. 50.2 % of teachers and trainers surveyed describe learning outcomes in qualification/programme documents as 'too vague and ambiguous', while 42 % strongly disagree or tend to disagree with that (Figure 8).

Around a third of respondents (32.9 %) believe that descriptors in qualifications / programme documentation they use are 'too detailed and restrictive'. In relation to this, 46.7 % of respondents strongly agree or tend to agree that 'using learning outcomes reduces the richness of learning by imposing a simplistic approach' (Figure 8). Commenting on this, some respondents noted that, as a result, the quality of education and training suffers, and instead of being

learner centred the approach results in 'ticking boxes' by teachers and students trying to ensure that all learning outcomes are reached.

Figure 8. **Teachers' and trainers' perceptions of learning outcomes in qualifications / programme documents (%)**



Source: Learning outcomes survey.

Critical perceptions of learning outcomes were also identified in teacher interviews and focus groups conducted during school visits. Thus, a range of concerns were related to the misalignment of learning outcomes with labour market needs, which was mentioned in case studies from France, Lithuania, Malta, and Poland.

In both Malta and Poland, teachers expressed criticism of the inflexible curricula, which struggle to respond quickly to the labour market changes, ultimately leading to a mismatch between graduates' skills and employers' expectations. In Malta, teachers criticise the limited flexibility to adapt learning outcomes to student interests and labour market needs. They also believe that the learning outcomes should be adjusted every academic year in response to changes in the labour market instead of a three-year wait for a review, such as they recently faced. Similarly, in Poland, a detailed curriculum, intended to meet

employers' needs, has become an obstacle because it is challenging to modify and update. As one of the interviewed teachers said, 'Changes in the curricula do not keep up with technological and organisational changes.' The process of introducing changes is lengthy, and involves working with experts, agreements with various stakeholders, and updates to teaching programmes and equipment. This lag in curriculum updates results in a misalignment between graduates' skills and current employer expectations, given the rapid pace of technological change. As another interviewed teacher highlighted, 'Centrally imposed rigidity is never beneficial'.

In Lithuania, teachers have expressed concern that the learning outcomes defined in programmes set higher requirements for graduates than are expected by mainstream employers in the labour market. In France, the challenges described relate to employers' understanding and use of competence-based assessment.

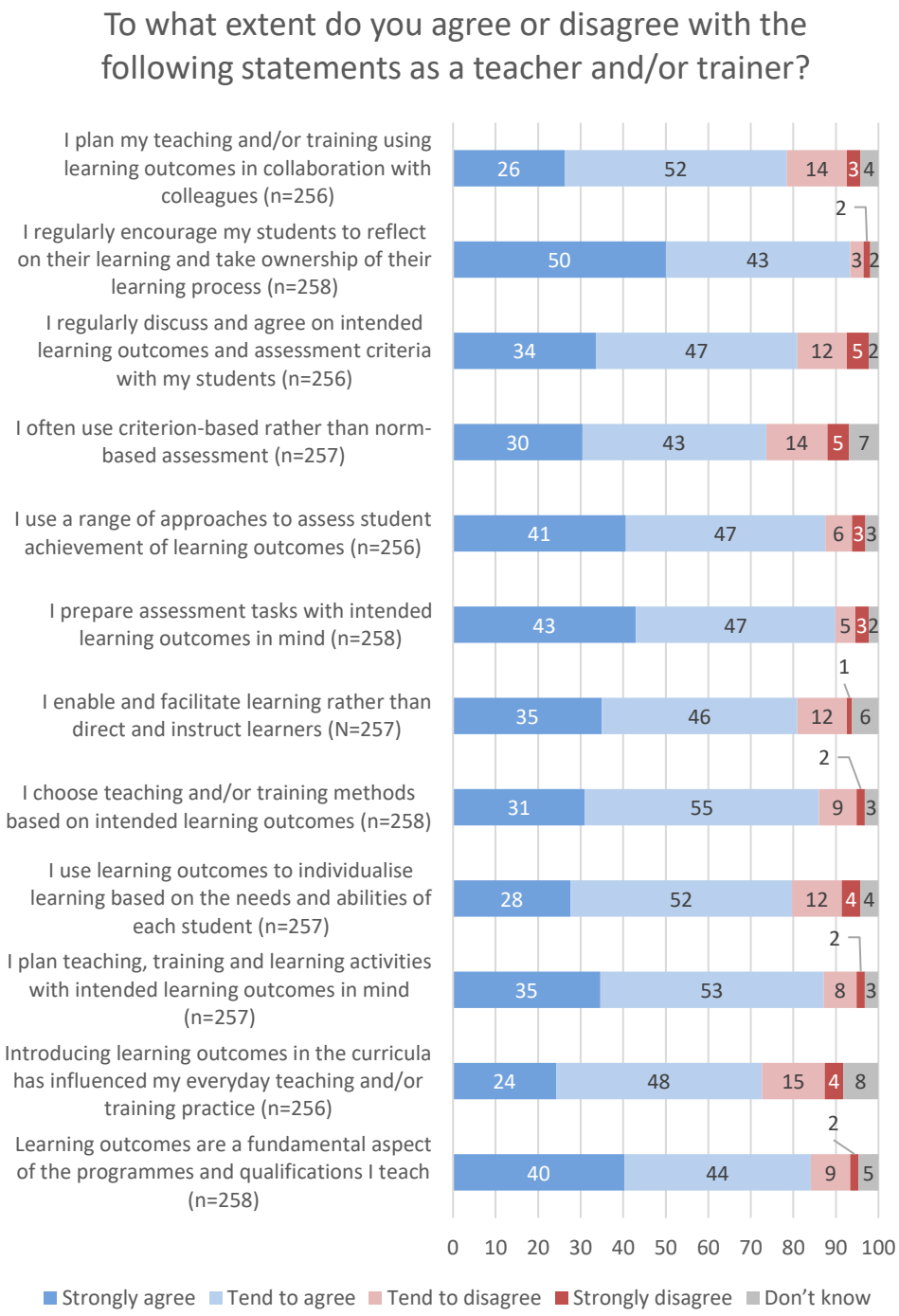
Another set of drawbacks mentioned by teachers concerns the formulation of learning outcomes descriptions in reference documents. In Portugal, learning outcomes are seen by most trainers as too complex and lengthy, so they are mostly used as a general reference rather than as a practical tool to support training processes. In Ireland, teachers have raised concerns about reference documents containing a large number of learning outcomes and a high volume of material to cover. One teacher said that it sometimes feels like they are just delivering material rather than teaching. It was also noted by one interviewee that the granularity of learning outcomes in QQI awards varies greatly from module to module, with some being quite general and others being highly specific.

In conclusion, teachers and trainers widely see learning-outcomes-based approaches in VET as beneficial, enhancing transparency, student engagement and instructional clarity. However, challenges such as rigid curricula, misalignment with labour market demands and complex descriptors persist. Addressing the challenges identified will be crucial for maximising the potential of learning outcomes to enhance the quality and relevance of VET programmes.

6.2. Use and influence of learning outcomes

As regards the actual use of learning outcomes in teaching and training practice, the majority of respondents indicate that they use learning outcomes descriptions in the form in which they are provided in national reference documents (Figure 9).

Figure 9. **Teachers' and trainers' practices and approaches to using learning outcomes (%)**



Source: Learning outcomes survey.

More than 85 % of the VET teachers and trainers surveyed strongly agree or tend to agree that they use learning outcomes in planning teaching, training and

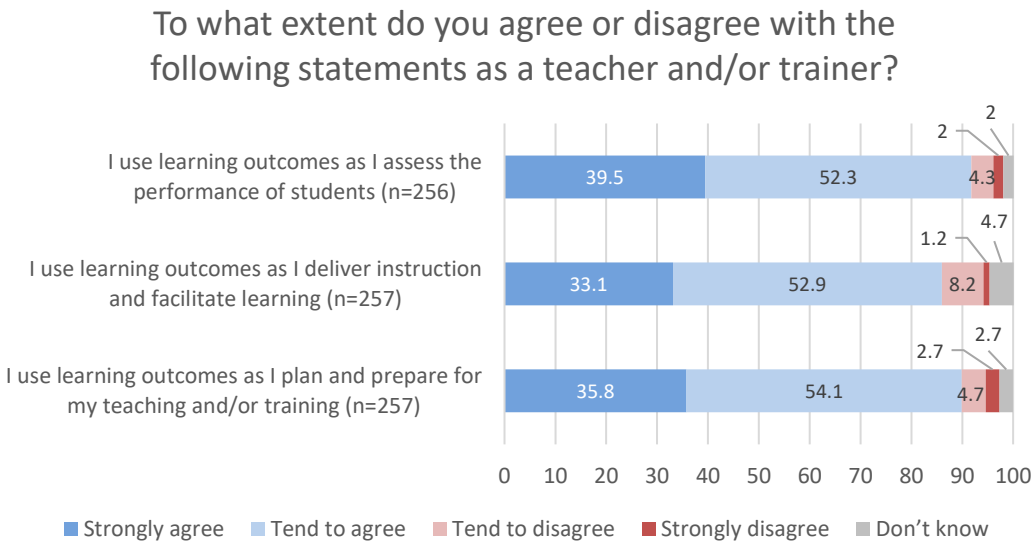
learning activities (88 %), in choosing teaching/training methods (86 %) and in preparing assessment tasks (90 %). This signifies extensive use of learning outcomes in the form they are defined in national-level standards and/or VET curricula.

Moreover, most respondents agree that they follow principles that are associated with learning-outcomes-based approaches (see Section 3.2 on the analytical approach). These include such aspects as using a range of approaches to assess student achievement of learning outcomes (88 %), enabling and facilitating rather than directing and instructing the learners (81 %), using learning outcomes to individualise learning based on the needs and abilities of each student (80 %) and using criterion- rather than norm-based assessment (73 %).

Survey respondents show a high level of agreement with statements related to the greater involvement of students in the learning process. For instance, the vast majority of the VET teachers and trainers surveyed state that they regularly discuss and agree on intended learning outcomes and assessment criteria with their students (81 %) and regularly encourage their students to reflect on their learning and take ownership of their learning process (93.1 %).

Figure 10 illustrates that a majority of teachers and trainers use learning outcomes in planning and preparing for teaching/training, delivering it and assessing student performance.

Figure 10. **Using learning outcomes by teachers and trainers at different stages of the learning process (%)**



Source: Learning outcomes survey.

School visits and lesson observations reveal variations in how learning outcomes are incorporated into lesson planning and delivery. They vary across countries and even between schools within the same country.

School visits in Finland demonstrate a high level of integration of learning outcomes into teaching and learning practice. Teachers plan and design various learning situations and assignments so that students can gain the skills and competences stated in the qualification requirements. Core principles in choosing suitable pedagogical approaches are the use of learner-centred teaching methods (work-based learning, project-based learning, group work, peer learning, digital learning environments, blended learning, workshop classes, learning diaries, etc.), high working-life relevance and facilitating learning rather than instructing. Assessment and feedback are integral to the process, with competence assessments taking place in real working-life situations. Collaboration among teachers and interaction with the world of work contribute to the overall delivery of learning. Teachers interviewed perceive discussions with students on their personal competence development plans as a core task in their profession. Teachers note a transformative shift in their roles when they see themselves as facilitators of learning, with their primary focus on guiding students through personal competence development plans and highlighting the changing nature of their profession. While VET teachers acknowledge the merits of the approach, there are also challenges, including increased documentation and the need to find suitable workplaces for learners' practical experiences.

In the Netherlands, teachers in both schools visited have positive views on applying learning outcomes, although their approaches differ. In the first setting visited, learning outcomes are clearly expressed at the beginning of each lesson, guiding students towards core tasks and work processes, with assessments aligned accordingly. Conversely, teachers in the other school emphasise practical, job-oriented module outcomes, with less focus on individual lesson objectives. At both institutions, some of the lessons visited maintained a traditional instruction-based approach. However, these lessons do not represent how students learn throughout the week, as they spend more time in companies or practice rooms than in the classroom. Both schools visited share a commitment to learner-centred methods, which is evident in their educational visions, emphasising the importance of work-based components and students' individual pathways through the programme.

In some countries, like Lithuania and Portugal, learning outcomes serve as a reference point for teaching and assessment, but they do not inform lesson preparation and delivery. However, in both countries, signals of learning outcomes were clearly present in the lessons observed. For example, in Portugal, in most

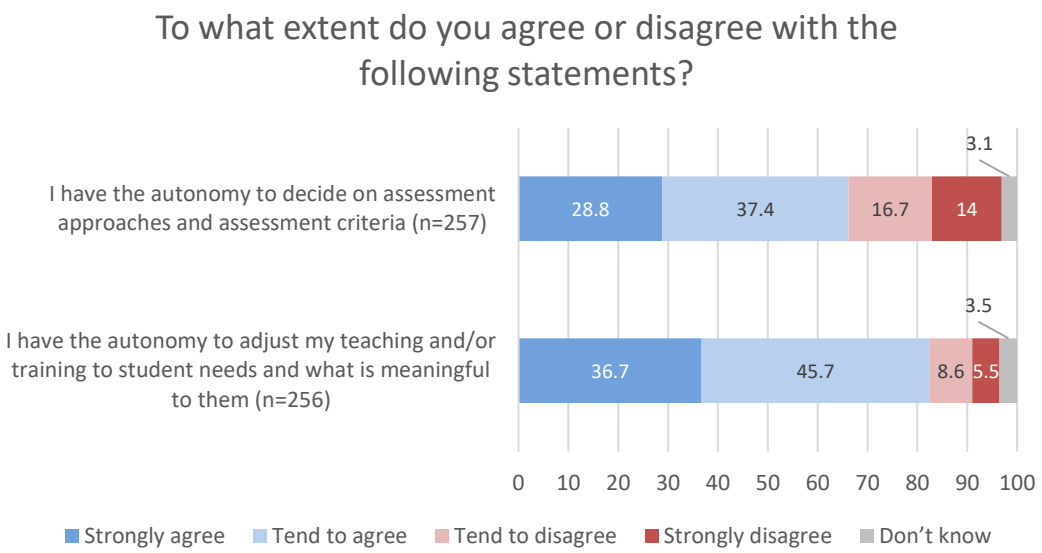
cases (except in one of the schools visited), learning-outcomes-based approaches are used implicitly: trainers choose teaching approaches focused on active learning, project-based learning, etc., but they do not explicitly connect these with the concept of learning outcomes or the learning outcomes descriptions. Still, in practice their methods are clearly connected to the objective of leading learners to deliver results, accomplish tasks and take stock of competences in different fields. For example, in one of the observed lessons learners were requested to research a specific product (a cooking condiment) and learn more about its properties, possible culinary applications, other areas where it grows, etc. Subsequently, they would have a study visit to a farm where this product is grown and used and, finally, they would have to develop a menu including this condiment. All these stages involve collaboration between different trainers, and discussions between trainers and learners to share insights and adjust the focus of the work. To plan these activities, trainers discussed together how their different subjects can link around a common activity, but again not with an explicit concern to address the learning outcomes descriptors.

Similarly, in Lithuania, teachers primarily rely on planning documentation rather than explicitly consulting programme outcomes for individual lessons. Despite this, they integrate intended outcomes into their teaching. While teachers draw on innovative methods, they do not explicitly link them to learning outcomes. However, observations show that learning outcomes influence lesson delivery, with teachers outlining objectives and tasks. Learner-centred approaches are evident, encouraging students to take control of their learning process. Teachers act as facilitators, guiding students through practical tasks and differentiating instruction based on student abilities.

6.3. Autonomy, training and guidance on learning outcomes

Regarding teacher autonomy, 82.4 % of VET teachers and trainers surveyed strongly agree or tend to agree that they can adjust teaching/training to students' needs and what is meaningful for them (Figure 11). However, teachers and trainers are more restricted in choosing assessment approaches and criteria: 66.2 % agree that they have the autonomy to do that, meaning that this aspect of learning is more centralised at the institutional or regional/national level.

Figure 11. **Teachers' and trainers' perceptions of their autonomy in teaching planning and assessment (%)**

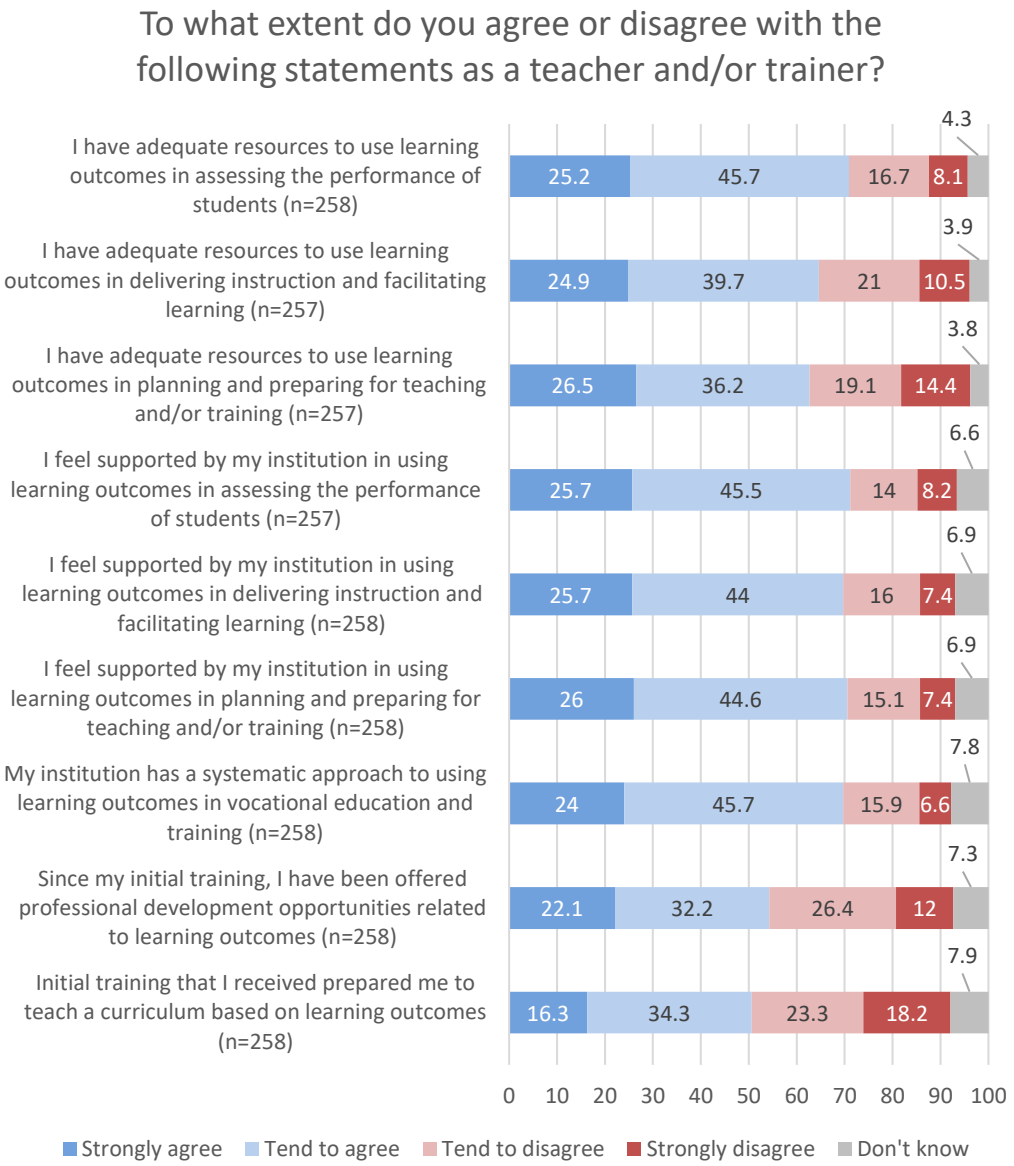


Source: Learning outcomes survey.

The survey results indicate a range of opinions among VET teachers and trainers regarding the availability and effectiveness of the training on learning outcomes. 50.6 % of the respondents believe that their initial training adequately prepared them to teach a curriculum based on learning outcomes. Conversely, 23.3 % tend to disagree, 18.2 % strongly disagree and 7.9 % are uncertain, revealing that only half of the surveyed educators feel prepared for learning-outcomes-based teaching (Figure 12).

Further, 54.3 % of surveyed teachers and trainers either strongly agree or tend to agree that they have had opportunities for professional development related to learning outcomes since their initial training. However, a concerning finding is that around 40% % of teachers and trainers lack initial or continuing professional development on learning outcomes. This underscores the importance of providing them with necessary resources, materials and professional development opportunities to effectively plan, deliver and assess learning outcomes.

Figure 12. **Teachers' and trainers' perception on the resources and support they are offered to use learning outcomes (%)**



Source: Learning outcomes survey.

The survey also sheds light on the availability of educational resources for VET teachers and trainers. The majority feel they have sufficient educational resources to apply learning outcomes across various stages of the learning process, including planning (62.7 %), delivering instruction (69.7 %) and assessing students' performance (71.2 %). However, 28.8 % to 30.3 % of respondents indicate the need for more comprehensive support for VET teachers and trainers in implementing learning outcomes.

Qualitative data further confirm the scarcity of institutional-level training and support in various countries, emphasising the need for comprehensive initiatives to address this gap.

In Portugal, senior professionals who have not been introduced to learning-outcomes-based approaches use them empirically or adhere to traditional teaching concepts. Trainers expressed the desire to receive more information on how to link curriculum components to knowledge, skills and behaviour, along with tools for effective implementation, especially in assessment.

Similarly, Bulgaria does not include learning outcomes in initial training or systematically in professional development. In early 2024, the Ministry of Education updated its home page to include guidance materials (mainly PDF documents from 2022/2023) for a number of VET subjects, for instance 'Garment technology' (theory and practice) ([18]).

In Finland, teachers of general subjects reported that they learned about learning-outcomes-based approaches during their university courses. However, some of the teachers of VET subjects have no recollection of the approach from their studies and have only received support from a VET provider. Overall, teachers reported receiving a high level of support from the VET providers regarding professional development.

In Poland, the case study visits found a lack of initial teacher preparation for formulating learning outcomes, and resistance to participating in additional training due to time constraints and reliance on available ready-made teaching programmes. The absence of guidance leaves teachers feeling unsure about the development of teaching programmes and the effectiveness of their teaching methods. 'We were not prepared to develop school teaching programmes, and we received no support in this regard'; 'There is a lack of an expert who would help, discuss and ensure us that what we are doing is good' (from interviews with VET teachers in Poland).

In France, teachers' familiarity with competence-based learning varies. Those who completed the master degree in teaching, education and training professions for secondary VET are well versed, while long-serving teachers (with over two decades of experience) learned about it through CPD training. Teachers who enter VET from the labour market gained knowledge of competence-based approaches on the job. Applying competence-based assessment is challenging for all groups due to disparities in evaluation between employers and the translation of results into grades. Opportunities for CPD in learning outcomes / competence-based approaches are rare, as they are organised by schools only at the request of staff.

([18]) The materials are not available for all VET subjects and most of them have been developed within EU-funded projects like 'Support for the dual learning system'.

Teachers seek more support, especially those in *centres de formation d'apprentis*, and value self-directed and peer learning for effective CBA implementation.

In the Netherlands, the learning-outcomes-based approach is firmly embedded in the VET system. Teachers in schools are very familiar with the learning-outcomes-based approach and in particular with the core tasks and work processes as described in the qualification files. However, there are no specific teacher-training courses on using and applying learning outcomes.

In contrast, in two of the countries studied, Lithuania and Malta, teachers feel extensively supported in their use of learning outcomes.

Lithuania takes a holistic approach, providing extensive training and resources on learning outcomes since 2014/2015. The QVETDC's efforts, including training sessions, guidelines, publications, methodological recommendations and translations, have resulted in teachers being highly familiar with the learning-outcomes-based approach, eliminating the demand for additional training.

In Malta, both teachers in secondary education VET and in MCAST reported sufficient levels of support in implementing the learning-outcomes-based approach. Learning outcomes are now included in the initial teacher-training courses and Ministry of Education VET teacher-training courses for those who started teaching before the reform.

Despite the apparent lack of training on learning outcomes, over two thirds of the VET teachers and trainers surveyed feel supported by their institution in using learning outcomes. Around one fifth disagree with this statement, suggesting there is room for improvement in institutional support for implementing learning-outcomes-based approaches (Figure 12).

6.4. Conclusions

This chapter presented the implementation of learning outcomes at the micro level, looking closely at teaching and learning practices in the 10 countries studied. Based on empirical data from online survey, lesson observations, interviews and focus groups, it concludes that VET teachers and trainers perceive learning-outcomes-based approaches as beneficial. However, despite their widely recognised benefits, the implementation of learning-outcomes-based approaches is associated with several drawbacks. Teachers and trainers in various countries find it overly bureaucratic, ambiguous and restrictive, leading to a simplified, box-ticking education system. In Malta and Poland, curricula fail to keep up with labour market changes, causing a skills mismatch. French and Lithuanian educators report unrealistic or poorly understood outcomes. Irish and Portuguese teachers

criticise the complexity and inconsistency of learning outcomes descriptors, making practical teaching challenging. These issues suggest a need for more flexible and responsive descriptions of learning outcomes.

VET teachers and trainers apply learning outcomes descriptions established in reference documents, and this includes the application of learning outcomes in preparation for lessons, planning of teaching and learning, delivery and the assessment of student performance. It is worth noting that some VET teachers and trainers seem to use learning outcomes despite not being introduced to them in their initial and/or continuous training. Finally, survey results reveal that there is room for improvement with regard to materials and institutional-level support when using learning outcomes. Country-specific conclusions are provided below.

(a) **Bulgaria**. The impact of learning outcomes descriptions on teaching practices is unclear and may vary among schools due to the absence of a uniform national approach to designing VET educational content. Despite systemic challenges in implementing learning outcomes in VET, teachers at schools visited navigate these obstacles to incorporate learning outcomes into their teaching and assessment practices. Emphasising the integration of theory and practice, teachers ensure that learning outcomes are intuitively conveyed throughout the learning process.

(b) **Finland**. Learning outcomes are well accepted and embedded in teaching practices. Teachers design learning situations and assignments in accordance with learning outcomes defined in the qualification requirements. They choose learner-centred pedagogies and play a role as facilitators during classes and for students' overall personal competence development plans.

(c) **France**. Teachers who participated in the study generally view learning outcomes favourably, perceiving them as a natural fit within VET. They appreciate the approach's practicality in pedagogy, emphasising its focus on specific tasks and alignment with current and future employer demands. However, concerns arise regarding certain learning outcomes descriptors, which teachers noted as insufficient, outdated or ambiguous.

(d) **Ireland**. The use of learning outcomes influences pedagogical and assessment practices within a diverse teaching environment. Learning outcomes shape teaching methods, with active learning approaches tailored to meet individual learner needs. While learning-outcomes-based qualifications afford teachers autonomy, the development of teachers' role towards being facilitators of learning reflects a broader shift towards learner-centred education.

(e) **Lithuania**. Teachers primarily rely on planning documentation rather than explicitly consulting programme outcomes for individual lessons. Despite this, they integrate intended outcomes into their teaching. While teachers draw on

innovative methods, they do not explicitly link them to learning outcomes. However, observations show that learning outcomes influence lesson delivery, with teachers outlining objectives and tasks. Learner-centred approaches are evident, encouraging students to take control of their learning process. Teachers act as facilitators, guiding students through practical tasks and differentiating instruction based on student abilities.

(f) **Malta**. Teachers demonstrate a strong grasp of learning outcomes, which are widely perceived to enhance student-focused planning, teaching and assessment. Curricula structured around learning outcomes are favoured by teachers for their ease of use. While secondary school teachers lack autonomy in crafting learning outcomes, IVET educators enjoy more freedom in this regard. Both sets of teachers have autonomy over their chosen pedagogies. Nevertheless, there is a disconnect between specific pedagogical approaches and the implementation of learning outcomes. While the use of learning outcomes is beneficial for less-experienced teachers, there is a concern that it may constrain more experienced educators and limit opportunities for incidental learning, thus affecting their autonomy.

(g) **Netherlands**. The observations indicate a moderate shift towards teachers as facilitators, with some lessons at both institutions visited maintaining a traditional instruction-based approach. Both schools share a commitment to learner-centred methods, evident in their educational visions, emphasising the importance of work-based components and students' individual pathways through the programme.

(h) **Poland**. The lesson observations provided clear signals of using learning outcomes in VET schools. Teachers clearly present the objectives of the lessons and refer to previously gained knowledge, skills and competencies. Teachers play the role of facilitators, sharing tips and encouragement instead of instructions, using active and practical learning and engaging students in formative assessment during the lesson.

(i) **Portugal**. Learning outcomes descriptors serve as guiding principles for teachers, yet they often rely on institutional resources and collaboration with colleagues for lesson planning rather than directly implementing these descriptors. Teachers naturally gravitate towards teaching methods focused on active learning and project-based approaches, although they may not explicitly link these methods with learning outcomes. They adapt their strategies to suit individual learner needs, fostering autonomy and responsibility. Embracing a facilitative role, trainers support learners in navigating their own paths, while assessment practices shift towards qualitative evaluation based on task performance. Ultimately, the aim is to bridge the gap between education and

the labour market, necessitating collaboration and innovation from trainers to prepare learners for real-world challenges.

(j) **Slovenia**. Teachers were not familiar with the terminology of learning outcomes, probably because the term is not used in the curricula.

Chapter 7.
Perspectives and experiences of learners

Key messages

a) Even though learners are usually introduced to intended learning outcomes at the beginning of a module or individual lesson, in most cases they do not appear to fully grasp the concept.
b) The issue arises because learners often tend to consult assessment criteria instead of intended learning outcomes as a guiding factor of their learning, and often equate learning outcomes to grades received.
c) Learning-outcomes-based approaches enhance the learning experience by making it more engaging, with learners mostly appreciating greater integration of practice in the lessons.
d) Learning outcomes, as perceived by teachers, are seen as a way to empower learners to take responsibility for their own learning process. While this autonomy is generally well received by most students, some may prefer more guidance from the teacher.

This chapter delves into learners' perceptions of learning outcomes, examining the extent of their awareness of these outcomes in the curricula and how learning-outcomes-based approaches affect their learning experiences. It also explores how a learning-outcomes-based approach may be used to encourage students to take responsibility for their own learning. The analysis draws exclusively from country case studies, particularly from lesson observations, focus groups with teachers and, in some instances, interviews with learners.

7.1. Awareness of intended learning outcomes

Across all country case studies, lesson observations and interviews with teachers and students suggest that students are informed about learning outcomes. In Portugal, for instance, learners are introduced to this concept at the beginning of the programme as well as at the beginning of each lesson. Learning outcomes are presented as tasks that learners are expected to achieve. Similarly, in Slovenia, the first two lessons of each subject serve as an introduction in which teachers acquaint students with learning objectives. Learning objectives are also stated at the beginning of each individual lesson and are defined in terms of learning outcomes. Likewise, in Lithuania, students are introduced to learning outcomes at the beginning of individual lessons together with the topic that will be covered, and the intended learning outcomes (referred to as objectives) they are expected to achieve. In the Netherlands, schools have also implemented measures to ensure

that students understand the meaning of learning outcomes. These measures include programmes structured solely around them, transparent assessment criteria and providing information about learning outcomes in module booklets. In Bulgaria too, teachers in the schools visited familiarise students with learning outcomes they are expected to acquire at the beginning of each lesson. Even though teachers do not use the language employed in learning outcomes descriptors, they adapt it, so it becomes understandable for students. For instance, teachers highlight where learners will be able to apply the knowledge and skills acquired and why is it useful.

To facilitate the accessibility and understanding of this concept, teachers often set out intended learning outcomes on shared online platforms. For instance, in Lithuania, students can access key programme documentation online and read about individual modules and lessons, including the topics and intended objectives or outcomes. The same holds in Ireland, where teachers outline learning outcomes on shared online workshop platforms if learners wish to refer to them. In Finland, learners actively use a digital student management platform where they can find necessary information regarding their studies, how they progress with them, what is yet to be studied, when it takes place, etc.

Observations of lessons from various case study countries indicate that learners are provided with numerous opportunities to become acquainted with learning objectives, as well as the intended learning outcomes they must achieve. However, according to the interviews with learners and focus groups, learners' awareness of learning outcomes across the majority of case study countries is limited. First, according to teachers, the issue arises that students are often more concerned not with achieving a specific learning outcome but with meeting the minimum knowledge required to pass the exam. For instance, in Slovenia, even though students are introduced at the beginning of the academic year to the curriculum, objectives and what is expected from them, interviews with teachers and learners reveal that students often focus on the minimum they need to know to attain a passing grade. In France, as suggested by teachers, the culture of grades is also relatively strong, with learners demonstrating stronger motivation to receive passing grades that would allow them to obtain a diploma. Second, students are often more familiar with the assessment criteria than with intended learning outcomes. For example, in Malta, students interviewed were not familiar with learning outcomes. Instead, they were more aware of assessment criteria, as they argued that consulting them helped clarify what they were supposed to learn. Indeed, learners contended that assessment criteria are easier to comprehend and, therefore, from their perspective, they encompass the range of learning that takes place. Thirdly, as the Lithuanian case study showed, learners do not pay

much attention to what they need to achieve in the programme or module they study. Teachers from the focus group suggested that students often focus on performing a specific task without referring to it as achieving a specific learning outcome. In addition, according to teachers, even though students are introduced to the contents of the programme at the beginning of it, they tend to forget it as they proceed through the learning process.

On the other hand, findings from other country case studies suggest that learners are aware of this term and its meaning. For example, in Poland, students perceive it as the skills they should acquire at a certain stage of their education. In addition, learners acknowledge their responsibility for their own learning process and recognise the need to exert effort, with the support of their teachers, to achieve the learning outcomes. Similarly, in the Netherlands, although students may not explicitly think in terms of learning outcomes, there is an expectation that they will apply their learning in real-world contexts, indicating a general awareness of the importance of achieving these outcomes. Discussion with learners in Finland showed that they are aware of the intended learning outcomes and also the assessment criteria by which competences achieved will be assessed.

7.2. Influence of learning outcomes on learner experience

Site visits and interviews with learners revealed that, in the majority of case study countries, learning outcomes have a positive effect on the learning experience. Although students may not explicitly link their learning experiences with learning outcomes, most tend to appreciate the teaching approaches employed, for several reasons.

(a) Learning-outcomes-based teaching methods make the overall learning more engaging and exciting, as students are actively involved in their learning process. For instance, in Ireland, a wide range of active and learner-centred methods were observed, such as active learning, peer-to-peer learning, group discussions and self-directed learning. Teachers also adjusted teaching for different groups based on their abilities. Indeed, learners expressed their gratitude for these types of methods, arguing that they are engaging and help retain the information learned throughout the lesson. Learners in Ireland also praised learning experiences that mirror authentic working environments. Similar teaching approaches were observed in Lithuania, as teachers acted as facilitators rather than instructors of learning and employed experiential, project-based, inquiry-based and problem-based learning. Interactive and active learning approaches were observed too. In Portugal, according to

students, learning outcomes make the learning experience more engaging, as they are challenged to develop and apply their competences in real-world scenarios and they feel the immediate impact of the learning experience. In Finland, students argued that the teaching approaches employed allow them to be active learners in the process of learning. Such approaches, along with regular feedback on their progress, were also argued to be an engaging factor motivating them to learn.

(b) Learning-outcomes-based approaches encourage students to take responsibility for their own learning. Lesson observations in Portugal showed that learning outcomes enable students to guide their own learning. A clear example was the teaching methodology known as individual trainee workshops, adjusted to differing learning formats: using computers with access to training contents and self-evaluation exercises, or using machinery. Each trainee or a group of trainees would do a different task (e.g. reading, using machinery or solving problems). At the beginning of the training, trainees would receive a document including a description of the intended learning outcomes, theoretical content and exercises. Then they would receive a case study and guidelines for evaluation. Despite initial challenges in adapting to such approaches, learners interviewed valued the autonomy and tailored learning experiences, which better prepared them for future endeavours in the labour market. Students also highlighted the importance of continuous evaluation, self-evaluation and peer evaluation as factors helping them identify areas where they need to improve. Similarly, in Slovenia, observations of practical work showed learners to be self-directed, as they were responsible for planning their work and monitoring their own progress. Indeed, learners themselves argued that they have a high degree of autonomy in planning their lessons. Likewise, in Malta, students praised the practical approach of lessons, although they did not connect it to the learning-outcomes-based approach. Moreover, students commonly agreed that learning outcomes clarify what they need to learn, rather than telling them exactly how to learn it. This gives students more autonomy in directing their own learning.

All the above indicate that learning outcomes and the teaching methods employed contribute significantly to enhancing the learning experience. Students across most countries appreciated how they link theory to practice and empower them to take responsibility for their own learning process. However, in some cases, learners from VET schools expressed concerns about the autonomy they are granted. For instance, in Finland, learners suggested that, even though they like the freedom to decide themselves how to direct their own learning process, sometimes they wish for more teacher-led learning and steering, and clearer rules

and assignments. Similarly, in the Netherlands, teachers suggested that students, especially those in the earlier years, prefer more traditional approaches in which teachers act as instructors rather than facilitators of learning. Moreover, in Slovenia, during the observation of the lesson, learners showed hesitation when asked to discuss specific topics, competences or skills covered in the lessons. This reluctance indicates that they trusted in the guidance and instructions provided by their teachers rather than engaging with the specific content on their own.

7.3. Conclusions

Regarding students' familiarity with learning outcomes, observations of lessons show that students are well acquainted with them at the beginning of modules or individual lessons. In some instances, intended learning outcomes are accessible on online platforms. However, in certain case study countries, such as France or Slovenia, learners tend to focus not on achieving intended learning outcomes, but on receiving a minimum grade needed to pass the exam and obtain a diploma. In instances such as Malta, students refer to assessment criteria as a guiding factor of their learning. In other cases, like Lithuania, students tend to forget the concept over time and do not emphasise what they need to achieve in their studied modules. Conversely, in the Netherlands or Poland, students demonstrate an understanding of the importance of achieving learning outcomes, even if they do not explicitly think in those terms.

Regarding the impact of learning outcomes on learners' experiences, overall, focus groups with teachers and interviews with learners show that students are particularly satisfied with how they integrate theory with practice, thus preparing them for the labour market. In addition, students generally express satisfaction with the autonomy that learning outcomes grant them in leading their learning process. However, in some cases, such as the Netherlands, Slovenia and Finland, learners expressed a preference for more guidance from their teachers.

Taken together, the findings reveal that, although learners are introduced to the concept of learning outcomes, they often do not explicitly connect them to their learning experiences. Nonetheless, in most case study countries, learning outcomes positively impact learners' experiences, making learning more engaging. However, some express concerns about being given too much autonomy in directing their learning process.

Chapter 8.
Success factors and perceived barriers to using learning outcomes

Key messages

a) Factors supporting the use of learning outcomes in VET vary according to the national context. Crucial factors include institutional autonomy for curriculum design, collaboration with industry, continuous teacher development, managerial support, flexible learning environments, adequate infrastructure and clear communication of policies. Tailored approaches and collaboration are key for successful implementation.

b) The challenges in implementing learning-outcomes-based approaches in VET encompass various factors across countries, including resource and time limitations, bureaucratic hurdles and insufficient support. Specific obstacles include diverse student backgrounds, teacher workloads and outdated learning outcomes descriptions, hindering alignment with labour market needs and student motivation.

This chapter, based on the consultations with VET school managers, teachers and students, discusses perceived success factors for and barriers to using learning outcomes in VET schools. These factors relate to the planning of VET programmes, the delivery of programmes and the teaching and learning process. Employing a thematic synthesis methodology, the study extracted insights from explicit discussions with stakeholders and identified latent themes that indirectly addressed these factors and barriers. This chapter illustrates key enablers and hindrances by selected country examples to maintain clarity and conciseness.

8.1. Success factors for using learning outcomes

Factors supporting the implementation of learning outcomes in VET vary across countries. The success factors identified in the countries can be clustered as follows.

(a) **Institutional autonomy and practices.** Granting institutions autonomy to design and implement vocational education content fosters a conducive environment for achieving learning outcomes. In Bulgaria, for instance, the institutions visited have been granted innovative school status, providing them with more autonomy than other VET schools to design and implement vocational education content, in particular adapting the content based on feedback from partner companies. This autonomy fosters an environment

conducive to achieving learning outcomes. Moreover, internal practices such as entry-level tests play a crucial role in identifying knowledge gaps early on, allowing educators to direct their efforts effectively towards addressing them.

(b) **Collaboration and engagement with labour market stakeholders.** While learning outcomes facilitate communication and collaboration with labour market stakeholders, the collaboration itself is also indicated as a factor for success in using the learning outcomes. In addition, participation in international projects exposes staff in VET schools to working with learning outcomes and the testing of new pedagogical approaches, enhancing alignment with learning outcomes. Examples of this can be found in many countries. An example is Lithuania. There, collaboration with labour market stakeholders is prioritised, ensuring that vocational education curricula are aligned with industry needs. This involvement of external partners facilitates the integration of learning outcomes into the curriculum. Similarly, participation in international projects, as seen in Bulgaria, allows for the testing of new pedagogical approaches, enhancing alignment with learning outcomes.

(c) **Teacher professional development and adaptation.** CPD helps teachers adapt to new teaching methods and curriculum frameworks based on learning-outcomes-based approaches. A gradual transition process supports teachers in effectively incorporating learning outcomes into their teaching practices. CPD is emphasised in both Lithuania and Malta as a factor for success. This support helps teachers adapt to new teaching methods and curriculum frameworks, ensuring that they can effectively integrate learning outcomes into their teaching practices. In addition, a gradual transition process, as implemented in Lithuania, supports educators in incorporating learning outcomes into their pedagogy gradually.

(d) **Management commitment and support.** Managerial support at the VET provider leadership level is an important condition for success. This relates to having a pedagogical vision and strategy that emphasises learning outcomes, a student-centred approach and close relations with labour market stakeholders. In Portugal, management commitment to the implementation of learning outcomes is crucial. Similarly, the Dutch case study illustrates how the institutional policy of company engagement and student-centred learning lays the foundation for using learning outcomes. Further, staff-training initiatives ensure that educators are equipped with the necessary skills and knowledge to integrate learning outcomes into their teaching. This support from leadership is essential for the successful implementation of learning outcomes.

(e) **Flexible learning environments.** Learning-outcomes-based approaches orient VET provision towards considering learning pathways that lead to the

achievements of the intended learning outcomes. The learning pathways can be different for each student. Allowing this flexibility and offering different learning environments (in school, in simulation labs, online, in companies) supports both teachers and students to accept learning-outcomes-based approaches and recognise the benefits of this orientation. The importance of flexible learning settings is emphasised in Portugal, for example. These provide opportunities for personalised learning experiences that improve student engagement and achievement. This flexibility allows educators to tailor their teaching methods to effectively align with learning outcomes.

(f) **Infrastructure and resources.** Using learning outcomes and offering differences in learning pathways also requires sufficient resources and the infrastructure to do so. This can relate to having a link with employers that allow students to learn in their workplaces, and to VET schools' own workshops and facilities, but also to the financial resources to allow students to work on projects and experiment with materials, and to have staff to support personalised learning pathways of students. National initiatives, such as the 'Centre of vocational excellence' initiative in Bulgaria, contribute to the modernisation of facilities. This modernisation enhances the learning environment and supports the successful implementation of learning outcomes. Similarly, focused lesson planning and the use of assessment criteria, as seen in Malta, ensure alignment with learning outcomes.

(g) **Clear communication and policy guidance.** Finally, from the perspective of VET providers' leadership, clear communication of policy changes is essential for promoting understanding and buy-in among teachers, other staff and students. This communication ensures that all parties involved in VET understand their roles and responsibilities in achieving learning outcomes.

In conclusion, the successful implementation of learning outcomes in VET relies on various factors such as institutional autonomy, collaboration with industry, teacher development, leadership support, flexible learning environments, resource adequacy and clear policy communication.

8.2. Perceived barriers to using learning outcomes

The factors hindering the implementation of a learning-outcomes-based approach in VET can be categorised based on various challenges identified in different countries. Some of those challenges concern the usual reform-related challenges such as resource limitations and lack of equipment in workshops (mentioned in Lithuania and Poland), bureaucratic hurdles (mentioned in Bulgaria), lack of a clear

strategy (mentioned in Slovenia), lack of time and resources for teachers for professional development (mentioned in France and Portugal) and the overall lack of (national) support (mentioned in Ireland).

Some other challenges are more specific to learning-outcomes-based approaches and demand more detailed reflection. These concern the following.

a) **Increased student heterogeneity increases the workload of teachers to apply personalised learning pathways.** In Finland, the increased heterogeneity of VET students, combined with the use of personal competence development plans as a basis for the provision of learning, puts VET providers and their staff under pressure, as they need to be able to organise various learning possibilities suitable for individual needs. This is occasionally difficult due to a lack of necessary resources (e.g. adequate places for work-based learning and competence demonstrations). Moreover, as the competence-based approach requires quite a lot of self-directedness from the students, there seems to be a clear difference between younger and older (adult) students as to how well they are able to take responsibility for their own learning: younger students tend to wish for more 'teacher-led' learning and peer support in the form of a class, and need first to learn how to learn in accordance with the competence-based approach.
b) **Securing the quality of work-based learning and the assessment of skills in the workplace is challenging for schools, making it difficult to ensure that learners acquire the learning outcomes.** In the Netherlands, it remains difficult for some VET schools to sensitise in-company trainers to the learning-outcomes-based approach and to ensure that students are learning in the right pedagogical climate within workplaces and are exposed to the envisaged core tasks and work processes. Further, overseeing the quality of the workplace learning in high numbers of workplaces is challenging for the VET schools. In Finland, as the learning for VET qualification takes place in various learning environments and increasingly in real working-life situations (workplace learning in the form of learning agreements or apprenticeship training) and as the assessment of competences is expected to take place in real working-life situations, VET providers and their staff find themselves in a situation where they first have to find ways to ensure that there are enough places available for students and also that the working places and the trainers have adequate skills and competences to be able to work with the students in accordance with the qualification requirements. One major challenge in this is to ensure the quality of the assessment of competence (i.e. based on demonstration).
c) **Bureaucratic language hinders communication of the learning outcomes to the labour market**. In France, a key aspect that hinders the successful

application of a competence-based curriculum is the need to 'translate' the vocabulary of the MEN to teachers, learners and employers. As shared by the deputy director of one of the schools visited: 'We are used to the vocabulary of the national education system, and, if we do not understand, there's always someone who will explain it to us, and we will manage. However, the language of the national education system is not necessarily understandable and transferable to the labour market. We have to translate what is expected (in the context of the apprenticeship) to the company tutor because the language used in the national education system is often incomprehensible in the workplace'.

d) **The detailed learning outcomes descriptions are quickly outdated and cannot be easily used in teaching and learning practices.** In Poland, the detailed description of the expected learning outcomes in the vocational education core curriculum, while facilitating the school's work planning, create challenges in adequately and promptly responding to technological changes and the related expectations of employers. Teachers and directors referred to examples, such as references in the core curriculum and examination standards to computer programmes for handling company accounting, or the absence of any reference to 3D printing in the requirements for the mechatronics occupation.
e) **While learning outcomes are used, the mindset of VET practitioners is still focused on content and knowledge, not on learning outcomes.** In Portugal, some trainers, learners and their families still have a mindset focused on content, assessment of knowledge and assignment of grades. It takes time to change that mindset to think in terms of learning outcomes.
f) **Learning-outcomes-based approaches do not always align with teachers' and students' preferences.** In the Netherlands, one factor hindering the successful application of learning-outcomes-based approaches is the desire of both teachers (mainly early-career teachers) and students (mainly adolescent students) for more structure in programme delivery (including a clear timetable with information on what needs to be done by when), which runs counter to a more strict learning-outcomes-based approach in which teaching and learning is tailored to the learners' expressed needs. In Malta, it was questioned whether learning-outcomes-based approaches fit well with the learning processes envisaged, especially in the secondary VET school.

Chapter 9.
Conclusions

This report has explored how learning outcomes are influencing teaching and learning in IVET school settings. It has identified whether and how learning-outcomes-based approaches are supported by national policies and frameworks, by VET school leaders and managers and by VET teachers and, finally, how they are perceived by VET students. The study has revealed that the adoption of learning-outcomes-based approaches is a significant and complex process of change within VET that involves every level and all actors within the system. Reforms have typically commenced with and focused on the introduction of learning outcomes at the national level, viewing them as the guiding principle or concept for the (re)design of qualifications and programmes linked to the construction of national qualification frameworks. Progress in this regard has been the quickest and the most thoroughgoing.

As far as the change at the level of the school or teacher is concerned, progress here has been slower and less extensive to date, although this is not surprising, since change at these levels requires school leaders and teachers to embrace and absorb new concepts and put new teaching practices into effect. As also noted in the preceding chapter, there are some downsides or challenges to learning-outcomes-based approaches. Change in VET takes time, so the shift to learning outcomes is, based on the evidence, a lengthy process. Drawing on concepts elaborated on in the Cedefop future of VET study (Cedefop, 2022a), findings confirm that, while the adoption of learning-outcomes-based approaches into national qualifications/programmes can be characterised as a step change in the system, progress with pedagogies has been more gradual and incremental.

By investigating these processes, the study conducted a light-touch assessment at each stage of the journey, based on the case studies in the selected countries (examining whether the conditions were in place to advance the use of learning outcomes in teaching and learning). Our analytical framework helped by identifying practices and approaches that could signal the application of learning outcomes in teaching and learning. These signals are linked to the way learning outcomes support more student-centred learning, more modular and flexible approaches and more work-based learning, and the involvement of companies in teaching and learning. Figure 13 provides an indicative overview of this light-touch assessment summarising the findings from the case studies.

Figure 13. **Heat map of how learning outcomes are used in VET teaching practice in the selected schools**

Country	National policy and administrative arrangements	Perspectives and practices of schools	Perspectives and practices of teachers	Perspectives and experiences of learners
Bulgaria	Advancing in embedding	Advancing in embedding	Advancing in embedding	Advancing in embedding
Ireland	Firmly embedded	Firmly embedded	Firmly embedded	Firmly embedded
France	Firmly embedded	Advancing in embedding	Advancing in embedding	Advancing in embedding
Lithuania	Advancing in embedding	Advancing in embedding	Firmly embedded	Advancing in embedding
Malta	Advancing in embedding	Advancing in embedding	Firmly embedded	Advancing in embedding
Netherlands	Firmly embedded	Firmly embedded	Firmly embedded	Firmly embedded
Poland	Firmly embedded	Advancing in embedding	Firmly embedded	Firmly embedded
Portugal	Advancing in embedding	Advancing in embedding	Advancing in embedding	Advancing in embedding
Slovenia	Firmly embedded	Advancing in embedding	Advancing in embedding	Advancing in embedding
Finland	Firmly embedded	Firmly embedded	Firmly embedded	Firmly embedded

NB: 'Advancing in embedding' means that learning outcomes are generally applied but are not yet seen as foundational to developments and perspectives. 'Firmly embedded' means that learning outcomes are foundational to the main developments and perspectives. Column 2 (national policies) relates to policies, reference documents, and support and guidance offered to schools. Column 3 (schools' perspectives) refers to support by school management, planning and delivery, and support to teachers in the schools visited. Column 4 (teachers' perspectives) refers to use by teachers and the guidance they receive on usage in the schools visited. Column 5 (learners' views) refers to learners' awareness and experiences in the schools visited.

Source: Authors.

The heat map shows indicative patterns of how the use of learning outcomes in teaching and learning in VET schools is supported at different levels (national, school, classroom). Five patterns emerge.

(a) **Firm embedding at all levels.** This is the case for some early adopters (Ireland, the Netherlands and Finland). As they had discussed the introduction

and use of learning-outcomes-based approaches as early as the 1990s (or even earlier), it was possible for learning outcomes to become a fundamental aspect of the entire VET system, from national policy through VET school planning and delivery to teaching and learning practice in the classroom.

(b) **Firm embedding at the national level trickling down to the school and classroom levels.** This concerns other early adopters (France, Slovenia), where mainly VET school practices still have some elements based on input orientation.

(c) **Advancing in embedding learning outcomes.** This concerns countries (Bulgaria, Portugal) where discussions and the introduction of learning-outcomes-based approaches in VET started later, often being linked to the introduction of NQFs. These practices in those countries show that progress has been made at all levels in using learning outcomes. However, these are currently not fully embedded in determining VET delivery.

(d) **Advancing in embedding learning outcomes, with more influence at the classroom level.** This concerns countries (Lithuania, Malta) where learning outcomes are not firmly embedded at the national or school level, although the teachers in the classroom indicate that learning outcomes form the basis of VET delivery.

(e) **Firm embedding except at the school level.** This concerns one country (Poland), where the case study shows that the use of learning outcomes is well embedded at the national level and in the classroom, but in terms of planning and delivery of VET at the school level there is still room for progress.

Keeping in mind the differences observed between countries, it can be concluded that the use of learning outcomes is not just rhetoric; in fact, policy-speak on learning outcomes has led to important changes in practice at the VET school and classroom levels. The application of learning outcomes, as evidenced by this study, influences teaching and learning in VET, prioritising student-centred approaches, more modular approaches and better use of the workplace as a learning environment, while taking into account students' well-being.

At the same time, it would be wrong to view the use of learning outcomes as a top-down process: the findings confirm those of research conducted elsewhere (e.g. Lipsky, 2010; Pressman and Wildavsky, 1974) that policy implementation is also a bottom-up process in which schools and teachers have considerable agency in determining how policy plays out in practice. As has been shown, VET providers can have some autonomy in determining learning outcomes statements within qualifications, depending on the country context, and how they are translated into the curriculum taught within a school and/or in individual subjects. Moreover, the findings have also confirmed that teachers have significant degrees of professional

autonomy around pedagogy (shaped not only by government policy but also through the professional expertise they develop during their teacher education; Cedefop, 2024), which can have a considerable influence on the types of teaching and learning methods used in the classroom and, by extension, on the experience of learners. The findings show that this aspect is especially critical when it comes to the adoption of the more learner-centred types of teaching methods that are aligned with the learning-outcomes-based approach. Teachers are not simply passive implementers of national regulations or guidance, but have agency in the choice of teaching methods they believe are best suited to the students in their care (often influenced, of course, by their peers and by arrangements for sharing and learning about teaching practice that exist formally and informally within VET providers). In other words, the adoption of learning-outcomes-based approaches, in the broadest sense of encompassing changes in both (national) qualifications and (local) teaching practice approaches, exhibits both top-down and bottom-up elements.

The findings point to significant changes taking place within VET at all levels of the system. Although it needs to be remembered that the study was only able to capture the views of a very small number of learners, teachers and school leaders, the findings highlight how important the shift to learning outcomes can be throughout the VET system. Despite these significant changes, in most countries the introduction of learning outcomes has not been accompanied by a substantial debate, whether among actors in the VET policy community (teachers, teacher-training institutions, policymakers, employer bodies, etc.) or in the realm of the general public. There have been few major discussions within the teaching community, although some objections to learning-outcomes-based approaches have been made (see Cedefop, 2024) – notably in the academic literature – from which it can be noted that they have not achieved widespread traction with the academic community. Similarly, none of the country case studies found major public debates on the issue. Two reasons may account for this. First, learning outcomes and the building of qualification frameworks may be seen as complex, technical matters undertaken by experts, perhaps exemplified by the fact that national qualification bodies frequently undertake the work. Similarly, pedagogy and assessment may be seen as falling within the remit of teachers' expertise, rather than being a matter for public debate ([19]). Second, learner-centred methods have been popular in many countries in teacher education since well before the adoption of learning-outcomes-based approaches (Cedefop, 2024).

([19]) Over 20 years ago it was remarked: 'Assessment governs the process of learning and the process of certification …. Given these facts, it is surprising how little public debate occurs over methods of assessment' (Green, Wolf & Leney, 1999, p. 192).

Thus, the transition to learning outcomes in VET may align well with existing preferences for learner-centred teaching methods. In some countries like Ireland, the adoption of learning outcomes in qualification design coincides with the growing popularity of learner-centred approaches, suggesting parallel rather than causative developments.

The explicit reference to learning outcomes in several countries could be linked to the introduction of NQFs, which may have heightened awareness of learning outcomes and their implications, potentially explaining why some teachers perceive learning outcomes as a continuation of existing learner-centred approaches rather than a distinct change.

The following conclusions present the answers to five research questions of the study, offering a deeper understanding of the applications of learning-outcomes-based approaches in VET systems.

How – and to what extent – are teaching practices, in the cases covered by the study, being influenced by learning-outcomes-based approaches?

The study looked at how the use of learning outcomes in teaching and learning is supported at the national, school and classroom levels. The study concludes that learning outcomes are firmly embedded in national policies in most countries studied; in the other countries, the embedding of learning outcomes is advancing. An important factor that determines whether learning outcomes are firmly embedded or whether countries advance has to do with when the country policies adopted learning outcomes or similar approaches (like competence-based approaches). This is the case because, as noted above, once learning outcomes have been adopted into national qualifications, the implementation of learning-outcomes-based approaches is likely to be an inherently lengthy process. Countries that started before the 2000s generally have systems in which learning outcomes are considered the implicit foundations of VET delivery. At the school level, the study also saw differences in the extent to which the selected schools implement learning-outcomes-based approaches. In this study, schools in three countries (Ireland, the Netherlands, Finland) are regarded as showing firm embedding of learning-outcomes-based approaches. The schools in the other countries show mixed signals of using learning outcomes but also still rely on input-related factors to structure VET delivery. When it comes to teachers and the classroom environment, schools in most countries (six) demonstrate firm embedding of the use of learning outcomes. As a result, pedagogical practice in classrooms is showing more signals of using learning outcomes than the overarching VET school environment. This may be because of factors noted above related to the prevalence of learner-centred teaching methods in teacher

education, but perhaps also because it is generally less clear how VET providers might support the implementation of learning outcomes. It could also be the case that this is not being made clear in national guidance.

VET teachers and trainers apply learning outcomes descriptions established in reference documents, and this includes the application of learning outcomes in preparation for lessons, planning of teaching and learning, delivery and the assessment of student performance. It is worth noting that some VET teachers and trainers seem to use learning outcomes despite their not being introduced in initial and/or continuous teacher training.

How are different teaching (and learning) environments influencing the application of learning outcomes?

The study looked at signals of using learning-outcomes-based approaches in teaching and learning. Some of those signals have to do with pathway-independent learning, more work-based learning and diversifying learning environments. The study did not look for evidence of how different learning environments influenced the use of learning outcomes; rather, it looked at the co-occurrence of learning-outcomes-based approaches and the use of different teaching and learning environments. In this respect, the study saw many examples of schools that are increasing the use of different learning environments, while school managers and teachers indicated that having learning outcomes as a basis for VET delivery opens up possibilities of differentiating in delivery and the use of learning environments, especially when it comes to strengthening the use of work-based learning in companies and in simulation labs in the VET school.

What is the resource implication of the shift to learning outcomes?

The resource implications of applying learning outcomes in VET are not fully explored in the study. This is because, in many countries, there is no before-and-after situation that could support a comparison of the resources involved in VET delivery. What can be mentioned however, is that lack of resources is a perceived barrier to the further implementation and development of learning-outcomes-based approaches and the related reforms in VET teaching and learning. This is especially related to having a more student-centred approach and tailoring provision to individual needs. Stakeholders interviewed in the countries studied mention that this requires more time from teaching and support staff. Further, across the board, implementing learning-outcomes-based approaches requires sufficient guidance materials, CPD opportunities and time to allow a change of mindset among VET school managers and teachers to occur.

Implementing a learning-outcomes-based approach therefore needs to be accompanied by sufficient resources and time. Yet it appears that this may not have been sufficiently factored into national approaches to learning outcomes. As noted at the start of this chapter, the shift to learning outcomes constitutes a major, lengthy systemic shift, since it pervades (or should) every aspect of VET. However, it could be questioned whether it has been resourced sufficiently in many countries in terms of the support required for schools and teachers. The research shows that most of the effort undertaken within countries in terms of redesigning their VET systems around learning outcomes has focused on qualification/programme (re)design related to the development of qualification frameworks; by comparison, in most countries a systematic approach has not (yet) been taken to redesigning teacher education or ongoing support to schools and teachers in the classroom. Many teachers are still not explicitly taught about learning-outcomes-based approaches in a holistic way, even though their teacher education may cover learner-centred teaching and assessment methods. Moreover, many teachers do not receive appropriate CPD. The lack of a systematic approach to all aspects of the learning-outcomes-based approach appears to constitute an important implementation gap in many VET systems and may partly account for the relatively slow progress observed in respect of shifts in pedagogies.

How are different ways of formulating learning outcomes influencing the tensions in teaching practices?

The study shows that the ways VET schools and teachers use learning outcomes have a complex relationship with the autonomy they have in adjusting VET delivery. Autonomy can be a driver for using learning outcomes, but it can also hold back developments if there is not a conducive environment in which to use them. This is particularly the case if there is no encouragement or guidance at the national level for schools to use learning outcomes. Autonomy also plays a considerable role in allowing schools to make arrangements with companies, support work-based learning and find alternative delivery modes.

The language used for describing learning outcomes also matters. Evidence shows that, in some countries, that language is still rather technocratic, making it challenging to use learning outcomes in communication with employers. The case studies showed that in some cases, for specific occupational areas, learning outcomes are rather abstract and vague as a result of being relevant for a longer time. Consequently, they offer limited guidance for structuring VET delivery. This prompts schools to define more specific interpretations of required knowledge at the school level to support lesson planning effectively.

To what extent are students aware of the learning-outcomes-based requirements?

The study revealed that, in countries where learning-outcomes-based approaches are well established at the national, institutional and teacher levels, learners are usually aware of its implications in the learning process (Ireland, the Netherlands, Poland, Finland). In these contexts, students perceive learning outcomes as skills to be acquired and demonstrate a sense of responsibility for their own learning pathways. Moreover, there is an indication that, in these countries, learners recognise the ways in which their learning can be applied to the real world, suggesting a more holistic understanding of the importance of achieving learning outcomes.

In countries where learning outcomes are actively used in teaching practices but not systematically supported at the policy and institutional levels, learners are usually unaware of their presence and usefulness (Lithuania, Portugal, Slovenia). Despite teachers' efforts to familiarise students with these concepts, learners often equate them with grades or prioritise understanding assessment criteria over learning outcomes. This highlights the need for the systematic embedding of the learning-outcomes-based approach in VET through the national qualification standards and programmes, as well as the need for support for VET providers and teachers.

Glossary

Achieved learning outcomes	Outcomes that an individual learner demonstrates at the end of a learning process. This is determined as part of student assessment.
Delivered learning outcomes	Knowledge, skills and competences applied through teaching and training methods and activities within school-based and work-based environments.
Intended learning outcomes	Written statements and expressions of intentions / desired targets of learning. They describe what learners are 'expected to know and be able to do and understand having completed a learning sequence, a module, a programme or a qualification' (Cedefop, 2022b, p. 18). Such statements are used in qualification frameworks, qualification standards and curricula.
Learning outcomes	'Statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competence' (European Parliament and Council of the European Union, 2008).
Realised learning outcomes	Outcomes (skills, competences) that an individual learner applies in the labour market, having completed the training.

Abbreviations

ANQEP	National Agency for Qualification and VET (*Agência Nacional para a Qualificação e o Ensino Profissional*, Portugal)
CBA	competence-based approach
CPD	continuing professional development
ECVET	European credit system for VET
EDUFI	Finnish National Agency for Education (*Opetushallitus*)
EQF	European qualifications framework
FET	further education and training (Ireland)
IVET	initial vocational education and training
Matsec	Matriculation and Secondary Education Certificate (Malta)
MCAST	Malta College of Arts, Science, and Technology
MEN	Ministry of National Education (*Ministre de l'Éducation nationale et de la Jeunesse*, France)
MQF	Malta qualifications framework
NCQ	National Catalogue of Qualifications (Portugal)
NFQ	national framework of qualifications (Ireland)
NQF	national qualification framework
QQI	Quality and Qualifications Ireland
QVETDC	Qualifications and Vocational Education and Training Development Centre (*Kvalifikaciju ir profesinio mokymo pletros centras*, Lithuania)
VET	vocational education and training

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Annex 1. Overarching analytical framework

The analytical framework of the three-year study 'The shift to learning outcomes: Rhetoric or reality?' builds on three key perspectives. The first one concerns the logical steps from intended to achieved learning outcomes. It helps to define learning outcomes and operationalise what the use of them implies in practice. The second perspective maps levels at which actions are (or may be) taken to implement learning-outcomes-based approaches. Each work strand of the study builds on three such levels: macro, meso and micro. Finally, the third perspective discusses stakeholders involved and the change processes taking place at these three levels regarding the use of learning outcomes in VET. Taken together, the three perspectives provide a framework that clearly identifies where learning outcomes are influential, what influences them and, finally, whether the intentions of VET systems are likely to be achieved.

Perspective 1. Making intended and achieved learning outcomes visible

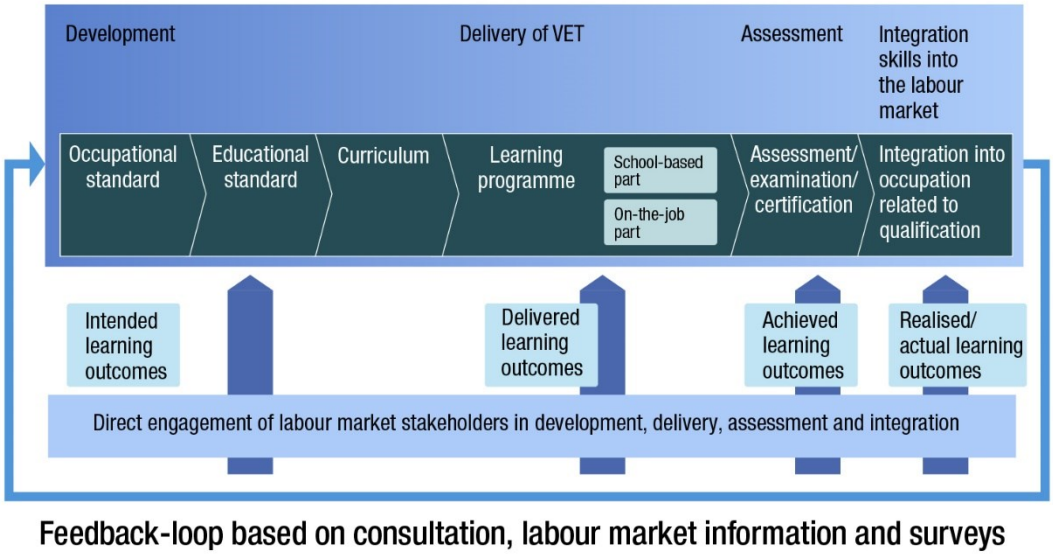
Logical steps from intentions to achievements

An earlier study by Cedefop (2021) highlight that learning outcomes may serve as 'vehicles' for continuous dialogue between the world of education and the world of work, involving various stages that are not necessarily linear. These include the development or renewal of standards (occupational standards, qualification standards) and curricula, that is, defining intended learning outcomes; delivery of VET (school-based, work-based and combined programmes), that is, using learning outcomes; assessment/examination/certification, that is, determining achieved learning outcomes; and integration into the labour market / insertion in the occupation related to the qualification. In this model, the intentions of VET qualifications 'travel' from standards and curricula, through delivery and assessment, to the labour market, where achieved and realised outcomes can be compared with the initial intentions. This model is an idealised one; for example, the application of learning outcomes in some contexts does not necessarily take place in a linear manner.

Figure 14 provides an overview of how intended learning outcomes travel to delivered learning outcomes, assessed learning outcomes (achievements) and realised learning outcomes. It also shows how learning-outcomes-based approaches facilitate the engagement of labour market stakeholders in closing the

feedback loop while moving along the pathway towards achieving learning outcomes. This model is a revised presentation of the models featured in previous Cedefop studies (Auzinger, Broek & Luomi-Messerer, 2017). The sequence of steps in the feedback loop is also largely in line with ideas concerning the dimensions of studying curricula and curriculum design. One dimension, proposed by Adamson and Morris (2007), indicates that the curriculum can be seen as a product of a social and cultural context (ideological dimension). A second dimension relates to the planned or intended curriculum. A third dimension concerns the implemented or enacted curriculum. A fourth dimension relates to the experiences of the learner (see also Frommberger & Krichewsky, 2012).

Figure 14. **Idealised model of the transformative journey of learning outcomes in developing and renewing qualifications**



Source: Adapted by authors, based on Cedefop (2021).

In Figure 14, intended learning outcomes are understood as written statements and expressions of the intentions / desired targets of learning. These statements are usually expected to reflect the balance between labour market intentions (i.e. responding to specific competence needs), civic intentions (i.e. responding to specific societal competence needs) and educational intentions (i.e. responding to competences required for further learning). They describe what learners are 'expected to know and be able to do and understand, having completed a learning sequence, a module, a programme or a qualification' (Cedefop, 2022b, p. 18). Such statements are used in qualification frameworks, qualification standards and curricula. They reflect current philosophical,

pedagogical and sociological theories and ideas about, for instance, competences, skills, human development, linkages between education and the labour market, and the role of VET in general.

Developing statements of intended learning outcomes does not necessarily mean that they will directly lead to achieved learning outcomes. The inclusion of learning outcomes in key reference documents ([20]) and their delivery through teaching in school- and work-based environments are crucial. This includes teaching and learning approaches and methods adopted by VET teachers and trainers, and the way in which these help achieve intended learning outcomes as defined in the reference documents.

Finally, achieved learning outcomes are those outcomes that an individual learner demonstrates at the end of a learning process. This is determined as part of student assessment. Learners take the achieved learning outcomes 'with them as they enter the labour market and develop themselves through their work and in lifelong learning. The next step is to examine 'realised or actual learning outcomes', that is, how graduates put what they have learned into practice and how this is perceived by the learners themselves and their employers. This concerns 'whether recent graduates can actually apply the skills and competences that were promised in their qualification' (Cedefop, 2021, p. 10). While looking at realised learning outcomes is not part of this study, it is still important to consider this perspective in terms of how, through the labour market, learning-outcomes-related feedback loops can be closed. A question worth asking is whether VET system intentions are effectively transmitted to the labour market. Moreover, one needs to consider whether labour market demands are used effectively in informing the intentions of VET systems.

It must be noted that there is no linear or self-evident process between developing statements of intended learning outcomes and seeing these intentions translated into achieved and realised learning outcomes. This process requires interventions at multiple governance levels, the involvement of various institutions, translations into other tools and, last but not least, interpretation by various individuals. At any stage of this process, the intentions behind the written statements can get lost, resulting in different achieved learning outcomes (comparable to the children's game of whispers). The study hence tracks the extent to which outcomes-based approaches are replacing input-based approaches in different dimensions and levels of the VET system. It explores whether traces of input-based elements remain visible while transitioning towards outcomes-based approaches. This helps to disentangle, map and analyse the relationships between

([20]) These may be standards underpinning qualifications (e.g. occupational, educational or qualification standards) and/or VET programmes/curricula.

the various dimensions that influence the transformation of intentions into achievements.

The described model presents a wider model of interaction between learning outcomes at different stages of the VET delivery model (i.e. the teaching and learning approach). This wider model emphasises that the intentions and achievements of VET systems, and how learning outcomes are used to express those, go beyond the purely educational design, application and assessment process. It involves a prior step in terms of conceptualising how learning outcomes are used in a VET system and a follow-up step on whether graduates can perform the learning outcomes as intended in the labour market.

The study 'The shift to learning outcomes: Rhetoric or reality?' focuses on only one part of this wider model, namely on the relationships between the intended, delivered and achieved learning outcomes, leaving aside the realised learning outcomes experienced by graduates and employers in practice and the final steps of closing the feedback loop (Cedefop, 2021). This narrower approach is in line with other theoretical frameworks developed by, for instance, Renold et al. (2015) and Biggs (2003). The 'curriculum value chain', as developed by Renold et al. (2015), links designing, applying and monitoring educational processes in VET. Biggs (2003) developed the concept of 'constructive alignment', which distinguishes the following steps: (a) defining intended learning outcomes, (b) choosing teaching/learning activities that are likely to lead to the intended learning outcomes, (c) assessing students' actual learning outcomes to see how well they match what was intended and (d) arriving at a final grade.

Above all, it needs to be emphasised that two approaches to intended learning outcomes and achieved learning outcomes may be taken. First, the process of intended–achieved learning outcomes refers to how the described learning outcomes are actually informing the delivery of VET and are, in the end, achieved by the learners. Second, the intended–achieved process refers to how learning outcomes express the intentions of the VET system and how the VET systems ultimately deliver on these intentions. This study explores both approaches. It looks at whether learning outcomes statements are used in qualification descriptions, curricula/programmes, textbooks, delivery and assessment. It also explores whether, in reality, the delivery and assessment practices are organised in line with the intentions of the VET system and in reference to the underpinning theories and policies.

Use of learning outcomes in practice

'Learning outcomes' themselves are defined in the recommendation of the European Parliament and of the Council on the establishment of the European qualifications framework for lifelong learning as 'statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competence' (European Parliament and the Council of the European Union, 2008). Yet approaches to education and training based on learning outcomes encompass much more than this and imply a wide range of changes across VET, including governance arrangements designed to ensure that learning outcomes reflect labour market needs through stronger engagement with relevant stakeholders; stronger autonomy of schools in determining how learning outcomes should be implemented to better meet local needs; and pedagogies and assessment methods that enable greater consideration of the diverse needs of individual learners.

In general, learning-outcomes-based approaches are closely linked to more learner-centred and demand-driven approaches in the VET sector (Cedefop, 2010; Frommberger & Krichewsky, 2012). Based on a review of literature on demand- and supply-driven curricula (Adamson & Morris, 2007), input- and outcomes-oriented curricula (Sloane & Dilger, 2005) and learner- and teacher-centred curricula (Frommberger & Krichewsky, 2012), the following overview table (see Table 3) was developed. It shows the dimensions that signal the use of learning-outcomes-based approaches in VET. Such operationalisation of the use of learning outcomes goes beyond observations that texts are changed in policy documents, textbooks and qualification descriptions (linked to intentions) and tries to identify changes in the delivery of programmes, assessment approaches and learning achievements in terms of what is learned, how it is learned, where it is learned, who supports learning and what the result of learning supported by a learning-outcomes-based approach is.

Table 3 features examples of both explicit and implicit use of learning outcomes in VET. On the one hand, learning outcomes descriptors established in reference documents (e.g. standards, curricula) may be used explicitly. They may inform VET delivery, including planning, preparation of lessons, choice of teaching and learning approaches and methods, and assessment tasks and criteria. On the other hand, this may not always be the case, and learning-outcomes-based approaches may be implicit. Principles associated with learning outcomes may be implemented in VET, but neither policy documents nor VET teachers or trainers may associate these with the use of learning outcomes. Throughout the study, such explicit versus implicit uses of learning-outcomes-based approaches are differentiated, helping to enrich the discussion on whether the shift towards

learning outcomes has become a reality. However, conclusions on the implicit use of learning-outcomes-based approaches must be treated with caution. Signals observed may have little to do with the use of learning outcomes and be a result of other factors.

Table 3. **Signals of the use of learning-outcomes-based approaches in VET**

Dimension	Implications of using learning-outcomes-based approaches
Governance of VET and stakeholder involvement in developing qualifications	Learning outcomes bring labour market and education stakeholders together to discuss the content and intentions of VET programmes (Stanley, 2015). This helps to close the feedback loop between education and training on the one hand and the labour market on the other. In this context, the use of learning outcomes implies higher levels of involvement of labour market stakeholders in the governance of VET. In particular, labour market stakeholders help design VET programmes and define their learning outcomes of them with respect to the demands of the labour market, and support the delivery of VET programmes (in the form of internships, traineeships, apprenticeships or work-based learning) (Cedefop, 2010).
Place of learning	There are more flexible arrangements concerning the place of learning, and more involvement of the workplace in VET programme delivery (Frommberger & Krichewsky, 2012). This is because learning-outcomes-based approaches emphasise the independence of outcomes from the pathway used to achieve them, hence opening more opportunities for flexible delivery and the involvement of different learning venues (e.g. workplaces, online and hybrid forms of learning).
Role of teachers and trainers (and other staff)	Teachers are becoming facilitators of active learning rather than instructors of learning (Frommberger & Krichewsky, 2012). This 'recognises that much learning takes place outside the classroom without a teacher present' (Adam, 2006) and that the role of a teacher is 'to create a learning environment that supports the learning activities appropriate to achieving the desired learning outcomes' (Cedefop, 2022b). Teachers also have greater autonomy in their decisions regarding teaching and learning (Cedefop, 2010). For instance, while intended outcomes described in qualification standards and curricula may be relatively specific, teachers may be able to add, remove or adjust learning outcomes during delivery to respond to the immediate needs of their students (University of Toronto, n.d.). They are also allowed to use flexible delivery methods and hence can choose from a range of teaching methods and assessment approaches (Cedefop, 2022a). All this affects teacher training (pre- and in-service), as it needs to train teachers and trainers to be more autonomous and act as facilitators. Teachers also need to learn how to cooperate with other teachers and trainers to take forward planning using learning outcomes (NCCA, 2019).
Role of learners	The approaches are learner-centred and encourage self-directed, autonomous learning (Cedefop, 2022a). This means that the learner is at the centre of the learning process and treated 'as an active constructor of knowledge and not just a passive receiver, who not only 'assimilates' but also 'accommodates' knowledge, skills and competences based on previous experiences, mental structures and beliefs' (Cedefop, 2016). The learner is also encouraged to take a more active role in the planning of learning, take control of their own learning process and monitor their progress (Adam, 2006).

Dimension	Implications of using learning-outcomes-based approaches
Curriculum integration and content of VET	It is not subjects or disciplines that are the guiding principle in structuring VET programmes, but rather learning outcomes, opening opportunities to combine courses and bringing together theory and practice (e.g. foreign language learning in the occupational context of VET programmes). Further, VET programmes focus more on skills and competences than on knowledge (Frommberger & Krichewsky, 2012) and better integrate generic and job-specific skills (Cedefop, 2012).
Learning modality	Teaching and instruction methods are not predefined but chosen based on intended learning outcomes (Cedefop, 2022a). Nevertheless, given the greater focus on skills and competences (rather than knowledge), and on mixing theory and practice, there is more focus on experiential learning and active learning (as opposed to instruction) (Frommberger & Krichewsky, 2012). This means that inquiry-based methods such as project-based learning, problem-based learning and technology-enhanced immersive and interactive learning experiences are encouraged, and so are active learning approaches – for instance, asking more questions, doing more group/project work, and engaging in peer learning.
Structure of VET curriculum/programme	More modular approaches are used in the structure of VET programmes, with more flexibility in how modules can be combined, and assessment of prior learning (Cedefop, 2010).
Role of assessment	The key role of assessment is to determine the extent to which the intended learning outcomes have actually been achieved. Using learning-outcomes-based approaches allows for the collection of evidence that can be used to compare intended learning outcomes with the performance of a learner. Assessment criteria provide a reference point for this judgement (learning-outcomes-based approaches also imply greater use of criterion-referenced rather than norm-referenced measures). Assessment results allow judgements of an individual's progress and achievement of learning goals. Thus, formative and summative assessment forms can be better combined (Frommberger & Krichewsky, 2012) and learners' self-assessment is encouraged. As the intended learning outcomes are often more comprehensive and include, for example, transversal skills and competences, assessment is also carried out more comprehensively, measuring different types of learning outcomes. Therefore, skills demonstrations in the work context or other forms of practice-based assessment methods, such as work assignments, portfolios or learning diaries, are increasingly used.
Inclusion	The flexible nature of learning outcomes makes it possible to open up VET to non-traditional learner groups (e.g. older learners), break through gender patterns in VET enrolment and, in general, respond to the diverse needs of learners (NCCA, 2019). This can be linked with the modularisation of programmes, less standardised learning modalities, the mixing of theory and practice, individualised learning plans, differentiated teaching approaches, personalised learning activities, flexible pacing, etc.
Well-being of learners	There is more transparency regarding what is requested from learners and reduced stress among learners, as the learning process is better attuned to their specific situations (Mahajan and Singh, 2017).
Demand and supply match	VET programmes make learners better equipped for the labour market and respond to employers' and learners' needs by closing feedback loops (Cedefop, 2021).

Source: Authors.

Perspective 2. Levels of implementation of learning-outcomes-based approaches

As noted above, the shift to learning outcomes implies a wide range of changes across entire VET systems, including policy, delivery and assessment. To grasp the full scale of these changes, a distinction can be made between three levels: macro, meso and micro.

(a) **Micro-level factors.** These concern the actual application of learning outcomes in practice. For instance, is the assessment really based on learning outcomes? Do teachers really have learning outcomes in mind when developing and delivering their lessons? Are learners aware of the intentions set in the learning outcomes statements? This level can also be referred to as the level of the enacted/experienced curriculum, manifesting itself through teacher and student action (e.g. use of time and resources), the roles of teachers and students, student interest and involvement, classroom interaction (e.g. questioning patterns, use of group work), school interaction, student outputs and changes in student attitudes and/or behaviours, changes in teacher attitudes and/or behaviours, and students' cognitive processes (Adamson & Morris, 2007; Frommberger & Krichewsky, 2012). At the micro level, a further distinction can be made.

  (i) **School and workplace.** This relates to general principles of how learning outcomes are supposed to be used.

  (ii) **Interactions between a learner and a facilitator.** This relates to how learning outcomes are used in the actual delivery of learning and teaching, in both schools and workplaces.

(b) **Meso-level factors.** These comprise factors that influence or determine institutional practices (i.e. delivery of VET programmes in schools and workplaces). These concern the existence of didactical and pedagogical tools and procedures that refer to applying learning outcomes. They can also relate to whether staff involved in delivery or assessment are trained to use learning outcomes. Further, they touch on discussions between VET providers and employers, for instance over work-based learning, particularly what the content of learning will be and what skills and competences students will acquire in schools/workplaces. Finally, meso-level factors concern interactions between VET stakeholders at the regional and/or local level aiming to match skills demand and supply. Key stakeholders include VET providers and companies delivering VET, municipalities, trade unions and chambers of commerce. The meso level can also be referred to as the level of the planned/intended curriculum, manifesting itself through strategies and plans, syllabi, prospectuses, teaching materials, schemes of work, lesson plans, assessment

materials, minutes of meetings and notices (Adamson & Morris, 2007; Frommberger & Krichewsky, 2012). At the meso level, a further distinction can be made.

(i) **Local-level infrastructure used for VET delivery.** This relates to the network of companies involved in VET, but also interactions between schools and teacher-training institutions on the pedagogical models applied.

(ii) **Local-level governance of VET delivery.** This relates to exchanges between stakeholders aiming to match labour supply and demand.

(c) **Macro-level factors.** These are factors that set out national, regional and sector-wide rules and regulations and create conditions in which learning outcomes can be applied and used in general. They can include general guidelines on how to use learning outcomes in describing qualifications, the extent to which VET providers have autonomy to decide how they deliver the learning outcomes (didactical approach, pedagogical methods), regulations on how learning outcomes must be applied in assessments, and regulations related to teacher education and to what extent and how learning outcomes are addressed in them. In addition to these more static factors potentially affecting the use of learning outcomes, there are also more dynamic ones concerning, for instance, how learning outcomes are used in policy debates to facilitate discussions between different groups of stakeholders (i.e. the world of education and the world of work). This level can also be referred to as the level of ideology, manifesting itself through books, academic papers and policy documents (Adamson & Morris, 2007; Frommberger & Krichewsky, 2012). A further distinction can be made between two levels:

(i) national-level application of guidelines and policies for determining learning outcomes in specific sectors;

(ii) national-level policies that enforce the application of learning-outcomes-based approaches.

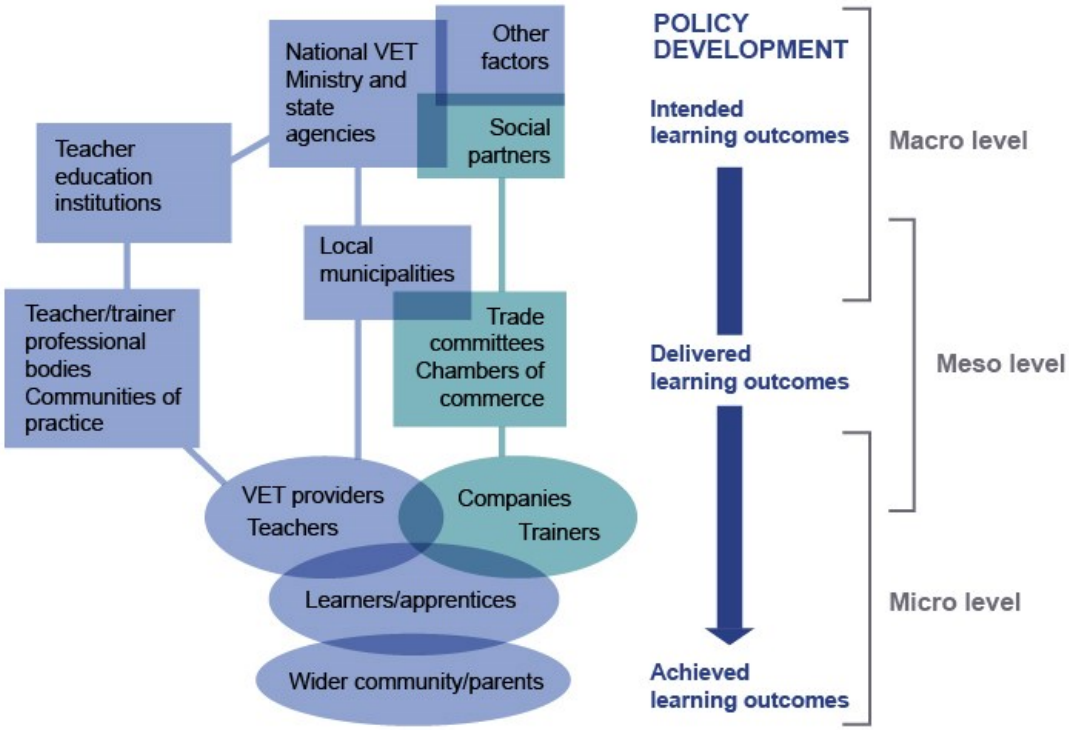
Perspective 3. Stakeholder relationships and change processes

Nature of relationships between stakeholders

Policy and implementation processes related to learning-outcomes-based approaches can be characterised as follows. Typically, at the national level, broad policies are developed that set out the general parameters for learning-outcomes-based approaches. These policies are then implemented through programmes and qualifications, including the processes of designing occupational and/or

educational standards and curricula that express the intended learning outcomes. The delivery of programmes (and learning outcomes) takes place at the local level through schools and training companies and by teachers and in-company trainers. Depending on the country, local municipalities, trade unions and chambers of commerce may also have a role. Assessment processes complete the learning outcomes chain, which involves teachers and VET providers but may also involve companies through in-company trainers or local trade unions (as in Denmark) or chambers of commerce (as in Germany). Figure 15 provides a schematic map of the stakeholders involved and outlines some of their connections.

Figure 15. **Stakeholders involved in implementing learning-outcomes-based approaches**



Source: Authors.

However, in some ways, this is an oversimplification. Wider literature on policymaking and policy implementation in education shows that the reality is more complex than this 'top-down' model suggests.

First, research shows that policy is seldom formulated at the national level and then implemented down an administrative hierarchy without being transformed in some way: 'As programmes are altered by their environments and organisations are affected by their programmes, mutual adaptation changes both the context and

content of what is implemented' (Pressman & Wildavsky, 1974, p. xvii). Education and training is a relational activity between teachers and learners that involves complex tasks for which rules, guidelines and instructions cannot deal with all eventualities and consequently there is much scope for teachers to adjust teaching and learning practice within national guidelines.

Second, policy is an outcome of a constant bargaining process between actors. This is particularly relevant to the processes involved in developing overall approaches to VET based on learning outcomes (as distinct from the more routinised processes of occupational and educational standards development). From this point of view, each actor involved in implementation 'attempts to negotiate to maximise its own interests and priorities', leading to a constant modification of policies (Barrett & Fudge, 1981, p. 4). A further development of this perspective is to see policy as the outcome of 'policy networks', which are 'sets of formal institutional and informal linkages between governmental and other actors structured around shared if endlessly negotiated beliefs and interests in public policymaking and policy implementation. These actors are interdependent and policy emerges from the interactions between them' (Rhodes, 2009, p. 424). Policy networks exist at various levels of government (e.g. national, subnational, local) and they mediate and shape interest group interactions between governmental and non-governmental actors (Marsh & Rhodes, 1992).

Third, professional communities or networks may influence the practice of teachers and trainers and, in turn, how they use learning outcomes. For instance, teacher-training institutions are likely to exert influence over teachers' approaches. Once qualified, teachers become part of wider communities and networks, and such networks can play an important role in teacher learning and organisational change (Coburn et al., 2013), while also being shaped by the policies and practices of school leaders and local municipalities (Coburn & Russell, 2008). It has also been found that teacher networks can affect the extent to which teaching reforms are sustained after support for the reforms is withdrawn. Networks that combine strong ties, high-depth interaction and high levels of expertise can enable teachers to adjust instruction to new conditions while maintaining the core pedagogical parts of reforms (Coburn et al., 2012).

These are useful perspectives to apply to VET, which, by its nature, involves a range of actors beyond the world of education itself in the world of work. Thelen's work on the development of VET systems gives centre stage to bargaining within tripartite social partnership structures involving the state, and the interests of employers and workers (Thelen, 2004). Such bargaining might influence the degree to which broad or more detailed learning outcomes are adopted as the norm within a VET system. Educators might favour broader, more holistic learning

outcomes that provide scope for more teacher autonomy. Employers might favour more granular learning outcomes that can reflect the detail of work processes. With regard to the scope for policy outcomes to differ from policy intent, it is clear that, applying the 'street-level bureaucrat' idea to the work-based learning component of VET, there might be even greater scope for deviation. How policies are implemented in the workplace is likely to be considerably shaped by company, sectoral or occupational practices and not simply educational imperatives.

Nature of change

Regarding the nature of change in relation to learning outcomes and learner-centred pedagogies, one might conjecture a priori that the advent of learning outcomes constitutes something of a step change in VET. Learning outcomes are either included in qualifications or not, although change in the curricula and the form of learning outcomes is possible. In contrast, pedagogies are likely to change more incrementally, since they have to be incorporated into the mindsets of teachers and trainers and into their teaching, customs and practices, which takes time. 'Old' teaching methods might coexist with 'new' methods for some time. One can hypothesise that this may be the case even where there is a strong national drive to adopt new teaching and learning approaches because of factors such as institutional inertia and a lack of upskilling and reskilling opportunities for teachers ([21]). The possibility of different adoption rates of new pedagogies in workplaces compared with classrooms must also be considered. This is particularly true in view of – in many countries – a lack of professional training and recognition for in-company trainers, which might slow the application of learner-centred pedagogies in work-based learning. This will be explored further in the third strand of the study. In assessment, one may need to distinguish between formative and summative assessment: summative assessment, and external assessment in particular, could undergo a step change, whereas formative assessment processes might be more likely to change incrementally. This will be examined in more detail in the fourth strand of the study.

An important question around the nature of change concerns where learning outcomes and pedagogies/assessment interact. Does this represent a 'critical conjunction' of developments? Learning outcomes might have given (or be giving) a push to existing trends towards learner-centred teaching, like the effect of the COVID-19 pandemic on the digitalisation of education. A sudden shock acts as a

([21]) An odd-sounding but nonetheless relevant analogy here is Christianity, which in many locations coexisted with other beliefs and religious practices for many years after it was adopted, despite inherent doctrinal contradictions and official teaching stating that it was the only true religion.

tipping point and pushes a system across a threshold into a new system state. Where learner-centred methods have not been prominent, learning outcomes might constitute a disruptive event from the pedagogical perspective.

Examining these issues is a matter not just of identifying trends but also of understanding causes. A priori, one can assume that the drivers behind the adoption of learner-centred methods in education are long-standing and deep-rooted within the world of education. Key reasons for their adoption are the theoretical and practical benefits in terms of how they help to facilitate the cognitive development of learners. Their 'ownership' by the educational practice community means that, in countries with high levels of teacher autonomy, learner-centred methods may have been adopted bottom-up, without the need for any central government policy direction. Yet the possibility that such a trend might not have proceeded at the same pace or to the same extent in VET must also be considered. Moreover, the role of in-company trainers, who typically do not receive the same type or level of pedagogical training as teachers, must be noted. Change processes might also differ between VET systems depending on the closeness of their links to general education.

In contrast, the adoption of learning-outcomes-based programmes and qualifications is likely to be of more recent origin than learner-centred methods, and the rationale is strongly related to the desire to link VET programmes more closely to the skills needed in the workplace. The implementation of learning-outcomes-based approaches in VET has taken place through the mechanism of nationally formulated policies. In contrast, for teaching methods, there may have been a stronger element of more 'organic' adoption from the classroom upwards. Thus, it can be hypothesised that another point of differentiation between learning-outcomes-based programmes and learner-centred pedagogies might be that the former are characterised by more top-down adoption processes while the latter are characterised by a strong element of bottom-up adoption by individual teachers and schools.

A model to capture the use of learning outcomes

The perspectives presented above indicate a distinction between the abstract (theoretical) and the concrete (practical) application of learning outcomes. The 'logical' steps denote the transition from the intended to the achieved. Perspective 3 also acknowledges that, in reality, change is not always logical. Together, these perspectives capture the extent to which learning outcomes are actually applied and help build an understanding of the transformation process

from intentions to achievements. These three perspectives are also shown in Figure 1 of this report.

This analytical framework makes it possible to see the extent to which learning outcomes are applied at each step and each level in individual countries. For instance, it helps to explore whether learning-outcomes-based approaches are applied in theory, but do not really feature in practice. It may also be that learning outcomes are well represented in standards and curricula, but do not feature in teaching and learning (delivery of learning outcomes) or assessment approaches. Based on the analytical framework, a 'heat map' can be developed for each country. Table 4 shows a fictive example. In the last strand of the study, these heat maps will form the basis for summative comparisons and European-level reflections on the conceptual, structural and political factors influencing the transformation of intended learning outcomes into achieved learning outcomes.

Table 4. **Heat map of how learning outcomes are used to get from intended to achieved learning outcomes: fictive example**

	Intended learning outcomes Learning outcomes in VET teacher and trainer preparation (as a proxy of how intentions to use learning outcomes are expressed in national VET systems)	**Delivered learning outcomes a** Learning outcomes in VET curricula and their delivery through teaching in school-based learning environments	**Delivered learning outcomes b** Learning outcomes in VET curricula and their delivery in work-based environments	**Achieved learning outcomes** Learning outcomes in assessment
Macro-level factors (rules, regulations, discourse)	Policies are in place that use learning outcomes.	Recommendations on learner-centred pedagogies are in place.	Guidelines on work-based learning use learning outcomes.	Assessment guidelines use learning outcomes.
Meso-level factors (institutional context, tools, instructions, cooperation, support)	Textbooks refer to learning outcomes. Programmes are generally described in terms of learning outcomes.	Schools still structure delivery using courses described in terms of input factors. However, teacher-centred approaches to VET delivery are in place.	Work-based learning environments use learning-outcomes-based tools (checklists indicating whether learning outcomes are achieved by learners).	Examinations still focus on task completion, duration of training and knowledge components.

Micro-level factors (individual application by teachers, trainers, assessors and learners)	Teachers still think in terms of input factors.	Teachers still work with input factors (number of assignments, tasks completed).	Trainers are trained to use learning outcomes.	Assessors pay attention to whether learners have achieved the learning outcomes and use skills demonstrations.

NB: Bright green means that learning outcomes are used in VET to a large extent; light green means that input-based factors still prevail in VET.

Source: Authors.

The example heat map above shows a specific pattern for one hypothetical country. Generally, learning outcomes are used at the macro level, but the transition to using learning outcomes at the meso and micro levels is uneven. In school-based VET programmes in particular, input factors still prevail. The work-based component of VET, on the other hand, is more prone to use learning outcomes.

Based on this analytical framework, it becomes possible to map how and where learning-outcomes-based approaches are implemented in countries. In analysing this, the enabling and hindering factors come to the foreground. These relate to the following:

(a) awareness of learning-outcomes-based approaches among policymakers, teacher-training providers and teachers, particularly through learning outcomes' embeddedness in pedagogical theories and methodologies that (future) teachers are taught;
(b) ownership of learning-outcomes-based approaches among teacher-training providers and teachers;
(c) guidance and support that teachers receive on learning-outcomes-based approaches (e.g. access to CPD opportunities, teaching and learning materials, additional funding);
(d) perceived usefulness of learning-outcomes-based approaches and competing perspectives regarding learning outcomes between policymakers, teacher-training providers and teachers (if any), which may concern, for example:
    (i) treating learning outcomes as a tool for increasing relevance and quality of VET programmes versus a way to increase top-down influence and bureaucratic control;
    (ii) understanding of learning-outcomes-based approaches as a way to improve learner-centredness and facilitate active and open learning versus thinking they lead to a 'dumbing down' of the learning process;
    (iii) perceiving learning outcomes as too vague and ambiguous versus too explicit and controlling versus an appropriate tool.

Annex 2.
Overview of data collection

This publication builds on data collected through scoping interviews, the survey of VET practitioners and site visits to VET providers (with a focus on schools). Numbers by country are specified in Table 5.

Table 5. **Overview of data collection by country**

Country	Number of scoping interviews	Total number of survey responses by country	Number of surveyed teachers and trainers in school settings	Number of site visits
Bulgaria	5	33	18	2
Ireland	7	21	10	2
France	5	15	6	3
Lithuania	6	98	65	3
Malta	6	71	31	2
Netherlands	6	116	50	2
Poland	7	31	13	2
Portugal	8	190	90	3
Slovenia	5	29	13	2
Finland	9	246	148	2
Total	**64**	**850**	**444**	**23**

The influence of learning outcomes-based curricula on teaching practices

This publication examines the influence of learning outcomes on teaching practices in vocational education and training (VET) through data from case studies across 10 countries: Bulgaria, Ireland, France, Lithuania, Malta, the Netherlands, Poland, Portugal, Slovenia and Finland. The research reveals that, while national policies across the countries promote learning outcomes as a key element of VET, the extent to which they influence classroom teaching practices varies.

It highlights that teachers in most countries demonstrate considerable autonomy in choosing teaching methods aligned with learning outcomes, but they face challenges due to unclear or restrictive learning outcome definitions. The study also finds that students' awareness of learning outcomes is strongest in countries where these approaches are deeply integrated in both national frameworks and classroom practices. The findings underscore the need for better alignment between national policies, school-level practices and teacher preparation, to ensure more effective implementation of learning outcomes in VET.

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CEDEFOP | European Centre for the Development of Vocational Training

Europe 123, Thessaloniki (Pylea), GREECE
Postal: Cedefop service post, 570 01 Thermi, GREECE
Tel. +30 2310490111, Fax +30 2310490020
Email: info@cedefop.europa.eu
www.cedefop.europa.eu

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