



Apprenticeship schemes in European countries

A cross-nation overview

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**The European Centre for the Development
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Foreword

The changing role of vocational education and training (VET) in a changing world of work underpinned by the fourth industrial revolution, obliges the European Union (EU) and its Member States to face the question of how to place and manage apprenticeships, within the education and training system, and in connection to the labour market. It is becoming increasingly important to understand the relevance and the role of apprenticeships in national policies for collective skills formation, as part of human capital development strategies.

European stakeholders and Member States have done much to increase the apprenticeship offer and its quality following the launch of the European alliance for apprenticeships (EAfA) in 2013, and the focus on the added value of work-based learning, particularly apprenticeships, of the Directors General for VET in the Riga conclusions in 2015 (European Commission et al., 2015). By the end of 2017, most EU governments had submitted concrete commitments on steps to increase the quantity, quality and supply of apprenticeships. By June 2017, 208 pledges for apprenticeships within the EAfA were made by companies and business associations, chambers of commerce, industry and crafts, social partners, regional authorities, education and training providers, youth and non-profit organisations, think-tanks and research institutes.

Supporting the European Commission in assisting EU Member States in introducing, reviewing or boosting their apprenticeships, Cedefop's thematic country reviews on apprenticeships have achieved, important insights into issues at stake in Member States while working with national authorities and social partners. There is genuine interest and impressive work done at country level but there is still much potential to unlock, to take apprenticeships one step further, improving their quality and making them a clear top education and training option for learners and appealing for companies.

In this study Cedefop stepped back from a descriptive approach to understanding apprenticeships, opting instead for a purposive one. Two fundamental differences emerge in how countries use apprenticeships that would bring new insights into EU and national level policy debates. The study evidences two function groups, each with different models sharing the same function and purpose. Rather than importing models often unsuitable

to specific national contexts, the challenge is how to support convergence of apprenticeships across the EU on the basis of commonly agreed principles and quality standards. The findings of the study come at an important time. There is a greater need to understand the relevance and the role of apprenticeships as part of collective skills formation, to improve their quality in line with the proposal for establishing a European framework for quality and effective apprenticeships, boost cross-country mobility of apprentices, and reflect on future developments of this traditional learning tool in the context of Industry 4.0.

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Table of contents

Foreword	4
Acknowledgements	6
Executive summary	10
1. Introduction	16
1.1. Background	16
1.2. Objective of the study and data collection	18
2. Mapping of system-level mainstream apprenticeship schemes	21
3. Applying a purposive approach to understanding apprenticeship	32
3.1. Main purposes and functions associated with apprenticeships	32
3.2. Defining group B schemes	38
3.3. Evolving approaches to apprenticeship function and purpose	40
3.4. Apprenticeship schemes in education and training systems	43
3.4.1. Function group A schemes (apprenticeship as an education and training system)	43
3.4.2. Function group B schemes (apprenticeship as a type of VET delivery)	46
3.4.3. Function group C schemes (apprenticeship as a hybrid system)	48
3.5. Concluding remarks: apprenticeship functions and purposes	49
4. Main apprenticeship scheme organisation features	52
4.1. Presence and form of alternation	52
4.1.1. Schemes implemented via apprenticeship programmes (A, B1 and C schemes)	52
4.1.2. Schemes implemented via apprenticeship pathways (B2 and B3 schemes)	54
4.2. Duration of apprenticeship training	57
4.2.1. Schemes implemented via apprenticeship programmes (A, B1 and C schemes)	58
4.2.2. Schemes implemented via apprenticeship pathways (B2 and B3 schemes)	60
4.3. Responsibility sharing between education and training and the labour market	65
4.3.1. Function group A schemes (apprenticeship as an education and training system)	65

4.3.2. Function group B schemes (apprenticeship as a type of VET delivery)	68
4.3.3. Function group C schemes (apprenticeship as a hybrid system)	69
4.4. Relationship between training company and learner	70
4.5. Concluding remarks: organisational features	71
5. Future EU apprenticeship challenges	73
List of abbreviations	77
References	79
Annex 1. List of apprenticeship schemes covered by the comparative analysis	82
Annex 2. Group B apprenticeship schemes: education levels and eligibility age	83
Annex 3. Responsibility for learning in the company: group B schemes	86
Annex 4. Presence of a contract between the learner and the company across the apprenticeship schemes	92

List of tables and boxes

Tables

1. Countries with no mainstream apprenticeship scheme	21
2. Overview of the 30 mainstream apprenticeship schemes and understanding of 'apprentice' or 'apprenticeship'	23
3. Function group overview and allocation of apprenticeship schemes by group	37
4. Eligibility age for group A schemes	44
5. Qualification levels: B2 and B3 apprenticeship schemes	47
6. Alternation for A, B1 and C schemes (implemented via specific apprenticeship programmes)	53
7. Presence of alternance across the B2 and B3 apprenticeship schemes	55
8. Organisation of alternation for the B2 and B3 schemes with compulsory alternation between school and training company	57
9. Duration of apprenticeship programmes and minimum in-company training	59

10. Duration of individual apprenticeship pathways and volume of in-company training: B2 schemes	61
11. Duration of individual apprenticeship pathways and volume of in-company training: B3 schemes	64
12. Overview of responsibility for the learning in the company: group A schemes	66
13. Responsibility for in-company learning: group C schemes	70

Boxes

1. Recurrent cross-country challenges in developing apprenticeships	18
2. Defining apprenticeships in Sweden	40
3. 'Trailblazers' apprenticeships in UK-England	42
4. Poland, vocational preparation of young persons: occupational training (craft sector)	43
5. Apprenticeships distinct from other vocational opportunities in Ireland	44
6. Safety nets for group A schemes	45
7. Organisation of the Polish vocational preparation of young persons: occupational training (craft sector)	53
8. Training provision organisation in B2 and B3 apprenticeship schemes where school attendance is not compulsory	56

Executive summary

Starting from what countries define and offer as apprenticeship training, the study aims at identifying the changes that apprenticeships are undergoing in practice and to shed light into the fundamentally different functions and purposes that apprenticeship policies fulfil and aim at. The study starts by mapping the system level mainstream apprenticeship schemes in the European Union Member States, plus Iceland and Norway ⁽¹⁾, which also provides an overview of how countries formally define or generally understand the terms apprenticeship or apprentice connected to the schemes ⁽²⁾. The mapping forms the basis for the subsequent two complementary analyses:

- (a) a purposive analysis of apprenticeships which looks at the different purposes and functions associated with the apprenticeship schemes, to identify what is at the core of the conceptual differences that hamper a shared understanding across countries and even within the same country between different stakeholders;
- (b) analysis of main organisational features of the apprenticeship schemes to reveal whether and how they may also differ organisationally across the different purposes and functions.

The data collection underlying the mapping and analysis took place in 2016 and consisted of desk research and interviews carried out by country experts. They collected information on the main characteristics of the apprenticeship schemes, as defined in the national regulatory frameworks. More than aiming at providing meticulous descriptions, the mapping and analyses aimed at sketching the status of apprenticeships across the EU Member States, Iceland and Norway (EU+) at a given point in time ⁽³⁾ and bring new angles into the policy debates.

⁽¹⁾ Pilot schemes, even when underpinned by a legal basis, are out of the scope of the mapping.

⁽²⁾ While the study aimed at being as comprehensive as possible in identifying existing apprenticeship schemes across the countries studied, it did not necessarily aim at being, and is not, exhaustive. The country experts did not manage to identify all mainstream apprenticeship schemes, signalling that even at country level there are difficulties in identifying what falls under apprenticeship training. The data collection tool and the information collected are available at: <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/apprenticeship-schemes>

⁽³⁾ At the moment of the data collection (first half of 2016).

The mapping

The EU+ mapping identified one or more apprenticeship scheme (considered as such in the national context) which has a stable/valid legal basis and is mainstreamed at system level in 24 out of the 30 countries covered by the study. No system-level mainstream apprenticeship schemes were identified in six countries: Bulgaria, Czech Republic, Lithuania, Malta, Slovenia and Slovakia. However, in four of these countries a valid legal framework existed and/or apprenticeship schemes were piloted; in two countries, no apprenticeship scheme existed but the school-based vocational education and training (VET) had strong in-company training.

A total of 30 relevant apprenticeship schemes are identified across the remaining 24 countries, two of which are not linked to the formal qualifications of national qualifications frameworks. Nine out of the 30 schemes are either umbrella work-based learning schemes (these could be configured as apprenticeship training in presence of a contract between the learner and the training company and remuneration) or multiple apprenticeship schemes composed of sub-schemes (differentiated by level of education, system of governance, occupation and type of qualification).

The mapping exercise showed that the apprenticeship schemes share the following common features: compulsory learning and/or working in a company, in combination or not with learning at an education and training provider, and the contractual link between the learner and the company. However, the country research confirms the expected heterogeneity in defining the terms apprentice or apprenticeship across the 24 countries; the following differences contribute:

- (a) the principal function attached to apprenticeships: education, employment, or mixed education and employment;
- (b) the approaches in defining the terms: purposive approaches (why) versus descriptive approaches (how);
- (c) the clarity of the definitions: varying from very clear (what and how) to vague and/or very broad.

Terminological heterogeneity seems to be a symptom of the conceptual differences that exist at cross-country level, leading to different defining functions and approaches in defining the terms.

A purposive approach to analysing apprenticeships

The first part of the analysis, led by a purposive approach, confirms that the apprenticeship schemes under analysis ⁽⁴⁾ are fundamentally different in their strategic function and purpose, with implications for the way they are defined and placed in national education and training systems.

Two main distinct purposes and functions, plus a hybrid one, are attached to apprenticeships and exist side by side:

- (a) function group A: apprenticeship as an education and training system. Apprenticeship aims at providing people with full competence and capability in an apprenticeable occupation or trade (clear and established education and training function). In this group the apprenticeship system is distinct from the school-based VET system, with or without compulsory work placements. The apprenticeship qualification is unique to apprenticeship training (as in journeyman, tradesman qualifications) and is a trademark on the labour market, though it is not a statutory or mandatory requirement for employment in such a trade. It signals that it was achieved in a certain way guaranteed for all those studying for a certain apprenticeship qualification.
- (b) function group B: apprenticeship as a type of VET delivery within the formal VET system. Apprenticeship aims at providing a diverse way to deliver VET to achieve formal VET qualifications by bringing people into the labour market (mixed education and employment functions). In this group, apprenticeship shares the same purpose and scope as other types of VET delivery and may replace or complement them in delivering a VET qualification. Generally, qualifications do not specify if achieved in apprenticeship or other types of VET delivery. The value of the qualification is given by its learning outcomes and not by the way the training is organised and delivered.
- (c) function group C: apprenticeship as a hybrid system. Apprenticeship is aimed at offering young people a way of reaching a qualification by bringing them onto the labour market (strong link with social inclusion and employment). Hybrid function group C combines elements of groups A and B, but does not fully fall under either of the two.

⁽⁴⁾ Not all the 30 apprenticeship schemes mapped are analysed.

Most schemes under analysis come close to the features of function group B (apprenticeship as a type of VET delivery). Increase in this function group seems to be accompanied by a shift in paradigm: from programme to pathway and individual learning experiences; from education and training towards employment; from sector to company, from peers to individuals. Using apprenticeships, though costly to implement, is comparatively easy to introduce formally, with different degrees of flexibility at implementation level, as a learning option at various education and training levels, and for a broad spectrum of qualifications. More than aiming at building an apprenticeship system distinct from school-based VET, countries principally aim at offering more training opportunities for young people and, increasingly, for adults. Apprenticeship as a type of VET delivery is often in competition with other types, ending up used as second chance choice (most schemes) or an alternative type of VET delivery rather than the main choice. Its place in the education and training system and the purpose it serves, in an educational perspective, are also blurred. It ends up being defined, in most cases, as paid employment or a form of employment contract, the employment function risking overshadowing the education and training one.

When apprenticeship is a system, it is clearly defined and organised, it has a clear place and value in the education and training systems and it has a clearly identifiable scope. As a result, it does not enter into competition with other forms of VET for learners or companies, and it has a clear educational and training value.

However, reforms have affected, and will continue to affect, approaches to the apprenticeship function and purpose. The multitude of national reforms on apprenticeships suggests that most countries are still making efforts to fit apprenticeships to existing characteristics of education and training systems and structures, and industrial relations.

There are trends to change and adapt apprenticeship functions, moving from group B to group A (such as the UK-England Trailblazers qualifications); from A to B (Romania, apprenticeship at the workplace), from C to B (Cyprus, new modern apprenticeship; Greece, EPAS apprenticeship). There is also movement within group B, from B1 to B3: from specific programmes to partial pathways, with the combination of school-based and apprenticeship types of delivery, as in the Netherlands.

Organisational features of apprenticeship schemes

After looking at the apprenticeship schemes' purposes and functions, and how they differ conceptually, the analysis focuses on whether and how the schemes differ in terms of organisation from the perspective of the following organisational attributes: alternation and its form, sharing of responsibility between the education and training side and the labour market side, duration of apprenticeship training, and relationship between the training company and the learner.

The purposive analysis of the apprenticeship schemes already indicates that the dominant approach to the organisation of apprenticeships is characterised by a high-level flexibility, delegated to the level of school-individual-company and facilitated by the definition of apprenticeships as a contract and/or paid employment. The presence of a contract is one organisational feature that is indisputably common across the schemes under analysis; this is accompanied by remuneration paid by the company.

Alternance between two learning venues is also a common organisational feature and is, in most cases, compulsory. However, many schemes allow the learner to spend the whole of his/her apprenticeship training time in the company provided that it has the capacity also to deliver the theoretical part of the qualification.

Responsibility sharing, between education and training and labour market sides, shows a demarcation in approaches, where sector representatives and companies have responsibility for implementation of the in-company training (most common among function group A) and where the schools are responsible also for the in-company training (most common among function group B).

The picture is more mixed when it comes to features such as duration of the apprenticeship training and volume of time spent in company. Length of overall apprenticeship training duration and volume of in-company training, is largely comparable and guaranteed for all learners studying for the same qualification under A, B1 and C apprenticeship schemes (implemented via apprenticeship-specific programmes). Length and volume vary, sometimes extensively, when it comes to B2 and, particularly, B3 schemes (implemented via apprenticeship individual pathways), with the result that the individual apprenticeship pathways, even when leading to the same qualifications, may encompass profoundly different experiences. Qualifications do not generally specify if achieved in apprenticeship or other types of VET delivery.

The value of the qualification is given by its learning outcomes and not by the way the training is organised and delivered.

Valuing apprenticeships: flexibility and transparency

A high degree of flexibility and variation, primarily associated with the most populated function group (B) seems to be the preferred option for organising apprenticeships and has widely become a learning experience at the level of school-individual-company. In the context of national qualification systems, apprenticeship schemes implemented via (full or partial) apprenticeship individual pathways are not a comparable mode of learning and may not guarantee equivalent quality standards and/or opportunities for peers studying for the same nationally recognised qualifications. This triggers potential disparity of opportunities among learners and companies. It also raises questions in relation to what apprenticeships are (in absolute terms, as well as within education and training systems), what they stand for (in content, organisation and quality) and their value on the market (the national or sectoral value of apprenticeships being indispensable to generate the interest of national and/or sectoral level economic and social partners).

In principle, apprenticeships are deemed the highest valuable type of VET delivery; in practice, by dissociating qualifications from apprenticeships, such assessment cannot be acknowledged or fully reached and made a commodity in the market. The result is that apprenticeships may not be valued beyond the company that provided the placement, with losses for all parties involved.

Within national qualification systems, with apprenticeships linked to nationally recognised formal qualifications and in light of concerns related to transparency and quality, it seems essential to rebuild the broken link between apprenticeship as a valuable type of VET delivery and the qualification it leads to. To make apprenticeship a trademark with a transparent recognised value on the labour market, qualifications associated with it should signal the way they have been achieved and guarantee quality for all, irrespective of the training company. This also implies that apprenticeship learning outcomes, a significant proportion of which are to be achieved in the company, should be focused on resilient competences, rather than half-life knowledge and short-life skills.

CHAPTER 1.

Introduction

1.1. Background

There has been a growing interest at European Union (EU) level in developing and improving apprenticeships in the aftermath of the economic crisis and its massive impact on youth employment. Apprenticeships are usually associated with a number of benefits for individual learners, for the companies that use them, and for the society overall. Among other benefits, apprenticeships are regarded as particularly efficient in supporting the school-to-work transition of young people, enhancing their employability. Together with other forms of work-based learning, apprenticeships are proposed as solutions to combat high youth unemployment rates and are central to the Youth guarantee (2013).

The significance of EU cooperation on apprenticeships and boosting apprenticeships in the EU Member States have been emphasised through the launch of the European alliance for apprenticeships (EAfA) in 2013, a platform bringing together governments with other key stakeholders such as businesses, social partners, chambers, VET providers, regions, youth representatives and think tanks; it is managed by the European Commission. EU countries are called on to increase the supply of apprenticeships while improving their quality and image. More recently, the *New skills agenda for Europe* (2016) emphasised the value of apprenticeships and work-based learning more generally as ‘a proven springboard to good jobs and to developing labour market-relevant skills, including transversal and soft skills’; this is also reconfirmed in the European Commission’s 2015 joint report ⁽⁵⁾.

Against this policy background, there has been a boom in recent years in national initiatives aimed at reforming and/or further developing existing apprenticeships or introducing and developing new ones. Countries have

⁽⁵⁾ The report states that the emphasis on work-based learning, in all its forms, should continue with reinforced EAfA and anticipation of skills needs in the labour market (European Commission, 2015).

reformed and/or (further) developed apprenticeships in various ways (taking into account national needs and specificities) with the result that this particular type of work-based learning has taken different forms in the way they are designed and implemented.

Nevertheless, obstacles to establishing good quality apprenticeships persist and so, with the strong support of the European social partners, the European Commission adopted a *Proposal for a European framework for quality and effective apprenticeships* in October 2017 (European Commission, 2017). The framework builds on the tripartite *Opinion of the Advisory Committee on vocational training (ACVT) on a shared vision for quality and effective apprenticeships and work-based learning* (ACVT, 2016) from December 2016, as well as on the joint work of the European social partners on the quality and cost-effectiveness of apprenticeships, leading to a joint statement by the European social partners (BusinessEurope et al., 2016) in May 2016. The Commission has identified 14 key criteria that EU Member States and stakeholders should use in developing quality and effective apprenticeships.

Evidence from Cedefop's work with the countries that wish to develop quality apprenticeships in line with EU policies ⁽⁶⁾ shows that, while countries develop their own apprenticeships to fit existing education and training systems and structures and industrial relations, they also face a number of common challenges. These typically fall under four areas of Cedefop's analytical framework (Cedefop, 2015c) as shown in Box 1.

⁽⁶⁾ Since May 2014, Cedefop has carried out thematic country reviews on apprenticeships in five volunteer countries: Lithuania and Malta as part of a first round (2014-15); Greece, Italy and Slovenia as part of a second round (2015-17) (Cedefop, 2015a; 2015b; 2017a; 2017b; 2018). Cedefop is carrying out a third round of reviews in two more countries, Cyprus and Croatia (to be concluded in 2018). In this round, Cedefop is piloting a lighter version of the thematic country reviews on apprenticeships (flash TCRs) in Belgium (French Community) and Sweden.

Box 1. Recurrent cross-country challenges in developing apprenticeships

The most common challenges that countries face in developing apprenticeships fall under four areas of Cedefop's analytical framework on apprenticeships:

- place in the education and training system: the rationale for introducing apprenticeships or the vision/purpose of apprenticeships is not clear or clearly explained; the status of the learner in apprenticeship is unclear or raises confusion (in relation to other VET learners or to workers);
- governance: specific governance structures/mechanisms for apprenticeships involving education and the labour market on an equal footing are not defined at any level (if they are defined or being defined, the role of the labour market is weak compared to the education side); the education and training system takes the lead;
- training content and learning outcomes: there are no apprenticeship-specific curricula or unique or clear guidelines on how to organise/devise the curricula for the two learning venues; often, there is no curriculum for the in-company training part or the relevant specifications are not understood by the companies (language) or not in line with the sector – occupation – company needs (content);
- participation of and support to companies: cost-benefit analyses are not carried out to understand the conditions under which apprenticeships may bring benefits to companies. Apart from financial incentives, there are no strategies to attract companies; and, despite financial incentives, most companies are not willing to provide apprenticeship placements.

Source: Cedefop.

1.2. Objective of the study and data collection

The understanding of the concept of apprenticeship has changed over time and continues to change; current attempts to define the term apprenticeship do not seem to integrate completely into one single concept. Boundaries and scope became somewhat blurred in policy-making, even within an individual country context. Therefore, especially in a cross-nation perspective, it is difficult to determine which learning opportunities may or may not be covered by the term apprenticeship, particularly in the context of the development of other forms of work-based learning such as school-based VET with compulsory work placements.

The study, therefore, starts from what countries define and offer as apprenticeship training, in an attempt to identify the changes that apprenticeships are undergoing in practice. It aims to shed light on the fundamental differences that may explain why there is no shared understanding of the concept of apprenticeship, by applying a bottom-up approach and through a detailed analysis of the identified system level, mainstream apprenticeship schemes. A working definition was used as a point of reference for the data collection but it is not used for the purpose of this analysis (7).

The unit of analysis of the study is an apprenticeship scheme which is understood as a set of rules and regulations about how, for example, this type of training should be designed, delivered, assessed, certified, and governed.

An apprenticeship programme delivers specific apprenticeship training organised in a logical sequence over a specified period of time on the basis of an inventory of activities, content and/or methods, leading to a qualification (usually, an apprenticeship qualification).

An apprenticeship individual pathway is the organisation of an individual's apprenticeship training based on a general VET programme or curriculum or on the (occupational) training standards leading to a qualification. An apprenticeship individual pathway may be a full pathway leading to a qualification or a partial pathway, combined with a school-based pathway.

The term apprenticeship has a theoretical and conceptual value; while the term 'apprenticeships' has a descriptive value and refers to what exists in practice.

The study starts by mapping those apprenticeship schemes, in the EU Member States, plus Iceland and Norway, which are considered as such in the national contexts, have a stable/valid legal basis and are system-level or mainstream schemes. Pilot schemes, even when underpinned legally, were out of the scope of the data collection. While the data collection aimed at being as comprehensive as possible in identifying existing apprenticeship schemes across the countries of the study, it did not necessarily aim at being exhaustive and it is not exhaustive. The country experts did not

(7) According to this working definition, apprenticeship is 'systematic, long-term training alternating periods at the workplace and in an education institution or training centre. The apprentice is contractually linked to the employer and receives remuneration (wage or allowance). The employer assumes responsibility for providing the trainee with training leading to a specific occupation.'

manage to identify all mainstream apprenticeship schemes, signalling that, even at country level, there are difficulties in identifying what falls under apprenticeship training.

The mapping also provides an overview of how countries formally define or generally understand the terms apprenticeship or apprentice connected to the schemes.

Following the mapping and the overview of the national definitions and understandings, the study looks into the different purposes and functions associated with the apprenticeship schemes to identify what is at the core of the conceptual differences that hamper a shared understanding across countries and even within the same country, between different relevant stakeholders.

After looking at the schemes' purposes and functions and how they differ conceptually, the analysis continues by focusing on whether and how the schemes differ in terms of organisation from the perspective of the following organisational attributes: alternation and its form, duration, sharing of responsibility between the education and training side and the labour market side, and relationship between the training company and the learner.

The data collection underlying the mapping and analysis took place in the first half of 2016 and consisted of desk research and interviews carried out by country experts. They collected information on the main characteristics of the apprenticeship schemes, as defined in the national regulatory frameworks ⁽⁸⁾.

The study and the data available online mark the start of a process during which Cedefop will continue efforts to improve, refine and enrich cross-nation data on apprenticeships with the help of national experts and networks.

⁽⁸⁾ The data collection tool and the information collected are available at: <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/apprenticeship-schemes>

CHAPTER 2.

Mapping of system-level mainstream apprenticeship schemes

The country research identified at least one apprenticeship scheme (considered as such in the national context) which has a stable/valid legal basis and is mainstreamed at system level in 24 out of the 30 countries covered. No system-level mainstream apprenticeship schemes were identified in six countries: Bulgaria, Czech Republic, Lithuania, Malta, Slovenia and Slovakia. However, in four of these countries a valid legal framework existed and/or apprenticeship schemes were piloted; two countries had no apprenticeship scheme but school-based vocational education and training (VET) had strong in-company training. An overview of these six countries is given in Table 1.

Table 1. **Countries with no mainstream apprenticeship scheme**

Country	Valid/stable legal framework for apprenticeship	No (valid) legal framework	Pilot apprenticeship scheme
Bulgaria		X	X
Czech Republic		X No apprenticeship scheme but strong in-company training as part of school-based VET	
Lithuania	X		X VET in a form of apprenticeship
Malta		X	X MCAST apprenticeship
Slovenia		X No apprenticeship scheme but strong in-company training as part of school-based VET at upper secondary level	
Slovakia	X		X

Source: Cedefop.

A total of 30 relevant apprenticeship schemes were identified across the remaining 24 countries; these are presented in Table 2. With the exception of two schemes (Italy, apprenticeship type 2; Latvia, craft apprenticeship)⁽⁹⁾, all the other identified schemes are linked to the formal qualifications⁽¹⁰⁾ of the national qualifications frameworks:

- (a) in Italy, the apprenticeship type 2 scheme is directly linked to job standards for the so called ‘occupational qualifications’ which give access to the status of qualified workers and regulates, in collective agreements, their employment conditions (particularly wages). Despite it being called ‘qualification’, there is no (formal education-related) certification. The recognition at the end of the apprenticeship of the apprentice’s ‘occupational qualification’ is not compulsory by law, but it is left to the employer’s discretion. The employer may, or may not, recognise and employ the apprentice as a qualified worker, after the conclusion of the apprenticeship period. An employer may employ as a qualified worker any person who proves to have the skills for a given ‘occupational qualification’;
- (b) in Latvia, the craft apprenticeship is when a person, in order to acquire the craft, joins a company or an education institution and signs a training contract. Apprenticeship in crafts is implemented through apprenticeship programmes, as well as through journeyman and master craftsman qualification exams. Craft apprenticeship is implemented separately from programmes in other education and training systems and is not included in the education programme classification (no relevant ISCED level).

In addition to the relevant apprenticeship schemes included in the mapping (Table 2), country experts also reported that:

- (a) Austria introduced the supra-company apprenticeship scheme (*Überbetriebliche Lehre*). This is a safety net for the dual apprenticeship scheme and is not counted as an extra scheme;
- (b) Austria is piloting a scheme at universities of applied science and private universities, comparable to German dual studies. However, both

⁽⁹⁾ These two schemes will not be covered in the following sections, as they do not lead to formal qualifications.

⁽¹⁰⁾ Some of them may also be linked to non-formal qualifications (not to national qualifications frameworks).

- in Austria and in Germany these schemes are not referred to as being apprenticeship schemes, and are not included in Table 2;
- (c) Latvia is piloting and regulating a ‘work-based learning’ scheme in upper secondary VET, in addition to the craft apprenticeship scheme;
- (d) Romania has been implementing ‘elements of dual VET’ at lower and upper secondary levels since 2013, in addition to its apprenticeship at the workplace scheme.

Table 2 lists the identified schemes and also provides a short explanation of how the terms apprenticeship or apprentice associated with the schemes are understood in the national contexts; this is based on the official definitions or, in the absence of such definitions, common understanding of the terms.

Table 2. Overview of the 30 mainstream apprenticeship schemes and understanding of ‘apprentice’ or ‘apprenticeship’

Country	Scheme (language of the country)	Scheme (in English)	Brief explanation of how the terms apprentice or apprenticeship are understood in the national contexts
AT	<i>Lehre/duale Ausbildung</i>	Dual apprenticeship	An apprentice is a person who is professionally trained and employed with the purpose of learning a trade given in the list of apprenticeship trades.
BE-fr	<i>Formation en alternance</i>	Dual training/ dual contract	An apprentice is defined as any person who is tied to an employer by a contract. The dual training may be implemented both in the education subsystem and in the vocational training subsystem.
BE-fl	<i>Deeltijds beroeps Secundaironderwijs, dbso</i>	Part-time vocational secondary education (for SMEs and large companies)	The system of learning and working combines, for each individual young person, a learning component and a workplace component. The workplace component may be formalised through a part-time contract or apprenticeship contract. The workplace component requirement may be fulfilled through in-company training or other types of training (e.g. organised by the public training services) ^(a) .
	<i>Leertijd</i>	Apprenticeships for SMEs (specific for SMEs)	
CY	<i>Νέα Σύγχρονη Μαθητεία</i>	New modern apprenticeship	Apprenticeship is generally understood as IVET programme consisting of dual training leading to formal qualifications, with alternating periods in school and at the workplace.

Country	Scheme (language of the country)	Scheme (in English)	Brief explanation of how the terms apprentice or apprenticeship are understood in the national contexts
DE	<i>Berufsausbildung</i>	Dual VET	Apprenticeship is generally understood as vocational education and training at the level of upper secondary education taking place in companies and part-time vocational schools, i.e. training within the 'dual system'. The term apprenticeship (<i>Lehre, Lehrlingsausbildung</i>) is used only for programmes at upper secondary level.
DK	<i>Lærlingeuddannelse</i>	Apprenticeship	All IVET-programmes are carried out as apprenticeship training in upper secondary education. IVET is defined as learning that consists of alternating periods in school and in placements in enterprises.
EE	<i>Töökoharõhineõp- pevorm</i>	Workplace-based learning	Workplace-based form of study is a form of full-time study where work practice constitutes at least two-thirds of the volume of a curriculum. Work practice may be organised on the basis of: <ul style="list-style-type: none"> • trilateral apprenticeship contract (school, learner, company); • a work contract signed between the company and the student.
EL	<i>ΕΠΑΣ Μαθητείας ΟΑΕΔ</i>	EPAS apprenticeships	Apprenticeship programmes are based on the dual education system. The theoretical part of the apprenticeship programmes is implemented in EPAS schools and the practical part takes place in in organisations/ businesses in the private or public sector.
ES	<i>Formación profesional dual</i>	Dual VET	The training actions and initiatives, combining employment and training, that aim at workers' professional qualification in a regime that alternates work activity in a company and vocational education and training delivered by the education system or labour administrations. Two instruments manage dual VET: <ul style="list-style-type: none"> • the 'apprenticeship contract' is considered a type of dual VET where learners have the status of employees; • a cooperation agreement between the training centre (school) and the company.

Country	Scheme (language of the country)	Scheme (in English)	Brief explanation of how the terms apprentice or apprenticeship are understood in the national contexts
FI	<i>Ammatillinenpe- rustutkinto</i>	Apprenticeship training	Apprenticeship training is hands-on learning at a workplace complemented by theoretical studies. An apprenticeship contract needs to be signed by both the employer and the apprentice.
FR	<i>Contrat d'apprentissage</i>	Apprenticeship contract	An apprentice is defined as a 'young professional' who follows training that draws on an alternation of work-based (in-company) training and school-based training. The concept of apprenticeship is defined by law in the remit of the 'apprenticeship contract' (<i>contrat d'apprentissage</i>) and the 'professionalisation contract' (<i>contrat de professionnalisation</i>) which are the two main apprenticeship schemes in France. These are individual employment contracts.
	<i>Contrat de professionnalisation</i>	Professionalising contract	
HR	<i>Jedinstveni model obrazovanja</i>	Unified model of education	The apprenticeship is composed of a professional-theoretical part and practical training and exercises.
HU	<i>Tanulószer- ződésenala pulóduálisszak- képzés</i>	Dual vocational training	Schools and businesses, or so-called other organisations (e.g. hospitals, foundations, associations), jointly contribute to the vocational training of students. The vocational school provides for the vocational theoretical training of youths, while practical training is done by enterprises or other organisations (such as enterprises, entrepreneurs, budgetary bodies, cooperatives, craftsmen, merchants). There are two possible (legal) types of practical training in enterprises. <ul style="list-style-type: none"> • the apprenticeship training contract: training contracts are concluded by the student and an enterprise; the latter undertakes to provide practical training as well as a regular allowance to the student; • cooperation agreement between a VET school and an enterprise to provide practical training for its students. In such a case, however, learners are not contractually linked to the employer, neither do they receive remuneration (they receive remuneration only for the duration of their practice during the school summer holidays).

Country	Scheme (language of the country)	Scheme (in English)	Brief explanation of how the terms apprentice or apprenticeship are understood in the national contexts
IE	Apprenticeship	Apprenticeship	Apprenticeship is a programme of structured education and training which formally combines and alternates learning in the workplace with learning in an education or training centre, whose completion prepares the learner for a specific occupation, and leads to a nationally recognised qualification.
IS	<i>lönnmenntun</i>	Apprenticeship	Apprenticeship is broadly defined as a form of 'workplace training'.
IT	<i>Apprendistato per la qualifica e il diploma professionale (Tipo 1)</i>	Apprenticeship for a vocational qualification and diploma (Type 1)	Apprenticeship is an employment contract for an indefinite period aimed at the training and employment of young people.
	<i>Apprendistato professionalizzante (Tipo 2)</i>	Occupation-oriented apprenticeship (Type 2)	
	<i>Apprendistato di alta formazione e ricerca (Tipo 3)</i>	Apprenticeship for higher education and research (Type 3)	
LU	<i>Contrat d'apprentissage</i>	Apprenticeship contract	The apprenticeship contract is a contract under which a company recognised as qualified for that purpose by an employers' professional chamber commits to teach or have someone teach the practice of a profession to another person. The apprenticeship includes: <ul style="list-style-type: none"> • practical training under the guidance of a supervisor; • scientific, moral and social general training, obtained at a technical high school.
LV	<i>Amata mācekļis</i>	Craft apprenticeship	A craft apprentice is a person who, to acquire a craft, has joined a crafts company or an education institution and has signed a training contract.
NL	<i>Beroepsopleidende Leerweg</i>	Dual pathway	Apprenticeships are educational programmes leading to a vocational qualification. The programmes must comprise 850 hours of education per year, of which at least 200 hours must be school-based instruction (<i>begeleide onderwijsuren</i>) and of which at least 610 hours must be work-based learning (<i>beroepspraktijkvorming</i>).

Country	Scheme (language of the country)	Scheme (in English)	Brief explanation of how the terms apprentice or apprenticeship are understood in the national contexts
NO	<i>Videregående-opplæring, Yrkesfaglige-utdanningsprogram</i>	Upper secondary vocational programmes	An apprentice is someone who has signed a contract in view of obtaining a trade certificate or a journeyman's certificate within a trade where in-company training is offered.
PL	<i>Przygotowanie zawodowe młodocianych</i>	Vocational preparation of young persons	<p>Vocational preparation of young persons may be organised either as: occupational training (<i>nauka zawodu</i>) or training to perform a specific job (<i>przyuczenie do wykonywania określonej pracy</i>).</p> <p>The former lasts between 24 and 36 months and combines practical vocational training at the employers' premises, as well as additional theoretical education. The theoretical education can be accomplished by sending an apprentice to a vocational school or vocational training centre, or by organising theoretical learning by the employer.</p> <p>The latter lasts from three to six months and includes practical vocational training at the employers' premises.</p>
PT	<i>Cursos de aprendizagem</i>	Apprenticeship programmes	Apprenticeship programmes are carried out in alternance training schemes, facilitating insertion in the labour market but also enabling the pursuing of studies.
RO	<i>Ucenicia la locul de munca</i>	Apprenticeship at the workplace	An apprenticeship is vocational training at the workplace that is conducted on the basis of an apprenticeship contract.
SE	<i>Gymnasial larlingsutbildning</i>	Apprenticeships in upper secondary	There are two pathways to study a vocational programme at upper secondary school: either as school-based education or as apprenticeship education. The main difference between these two pathways is the proportion of workplace-based learning. For apprenticeship education, more than half of the studies should be provided in workplace-based learning from the moment the apprenticeship starts. Apprenticeship education may start from the first, second or third years of study and may involve a contract and salary.

Country	Scheme (language of the country)	Scheme (in English)	Brief explanation of how the terms apprentice or apprenticeship are understood in the national contexts
UK-England	Apprenticeships	Apprenticeships (SASE frameworks ^(b))	Apprenticeships are full-time paid jobs which incorporate on and off-the-job training. A successful apprentice will receive a nationally recognised qualification on completion of their contract.
UK-Scotland	Modern apprenticeships ^(c)	Modern apprenticeships (frameworks)	Modern apprenticeships offer people aged 16 and over the opportunity to develop their workplace skills and experience, and gain a qualification while in paid employment.

^(a) The decision on which route an apprentice follows is taken by the education and training provider on the basis of his or her readiness to be placed in a company.

^(b) In UK-England, there are two sub-schemes running in parallel: i.e. the specification of apprenticeship standards for England (SASE) frameworks and the Trailblazers. The latter will replace the former by 2020. Since 2014 no SASE frameworks have been developed and new apprenticeship standards have been developed by employer groups known as Trailblazers.

^(c) Apprenticeships in UK-Scotland are available at four levels: modern apprenticeships at level 2 and level 3; technical apprenticeships at level 4; professional apprenticeships at level 5

Source: Cedefop.

The above overview illustrates the anticipated heterogeneity in defining the terms apprentice or apprenticeship across the 24 countries. Compulsory learning and/or working in a company, in combination or not with learning at an education and training provider, and the contractual link between the learner and the company appear to be the recurrent features of apprenticeships across all countries; the exceptions are the schemes in Belgium-fl ⁽¹¹⁾. However, the heterogeneity that comes across in the above detail may have causes that include differences in:

- (a) the principal function attached to apprenticeships: education, employment, or mixed education and employment;
- (b) approaches in defining the terms: purposive approaches (why) versus descriptive approaches (how);
- (c) the levels of clarity of the definitions, varying from very clear (what and how) to vague and/or very broad.

⁽¹¹⁾ Where the workplace component requirement may be fulfilled through other types of training besides in-company training.

The terminological heterogeneity seems to be a symptom of the conceptual differences that exist at cross-country level, hence the different defining functions and approaches in defining the terms.

At the scheme/country level, one part of the difficulty in understanding the conceptual approach to apprenticeships and in carrying out a consistent comparative analysis is the ‘umbrella schemes’: both schemes in Belgium-fl, the dual VET in Spain and the dual vocational training in Hungary. While they are not ‘apprenticeship schemes’, they include ‘instruments’ (contract between the learner and the training company and remuneration) that are nested in the umbrella scheme and allow the possibility to implement the compulsory practical training of the schemes through in-company training. When the schemes in Belgium-fl, Spain and Hungary use these ‘instruments’, they are to be considered apprenticeship training; in the absence of the ‘instruments’, they are not. Formally, the two instances differ, with the ‘instrument’ schemes potentially signalling a stronger employment focus; however, substantially (in terms of training value and training delivery in practice) the difference is not straightforward. The following sections of the study cover only the ‘apprenticeship instances’ of the mapped schemes and are referred to as:

- (a) Belgium-fl, part-time vocational secondary education with part-time contract or apprenticeship contract;
- (b) Belgium-fl, apprenticeships for SMEs with part-time contract or apprenticeship contract;
- (c) Spain, dual VET with apprenticeship contract;
- (d) Hungary, dual vocational training with apprenticeship training contract.

Another level of difficulty is posed by the apprenticeship schemes that are divided, at regulatory level, into sub-schemes along different dimensions, some of which mark significant conceptual and/or organisational differences ⁽¹²⁾:

- (a) by system of governance in Belgium-fr: the dual training may be implemented both in the education subsystem (*) and in the vocational training subsystem (*); they are governed and organised differently, lead to different types of qualifications, even though they make reference to the same (occupational) training standards;

⁽¹²⁾ The sub-schemes marked with (*) will be covered by the analysis.

(b) by level of education in Italy:

- (i) the type 1 apprenticeship scheme comprises apprenticeship in upper secondary education (*) and in post-secondary education.
- (ii) the type 3 apprenticeship scheme is subdivided into apprenticeship for higher education (*) (tertiary level, academic and non-academic), related to formal qualifications, and apprenticeship for research, not related to the formal education and training system.

The level of education appears to be one element that divides schemes into sub-schemes (as in Italy), but also justifies the existence of different apprenticeship schemes at national level (Italy, types 1 and 3; UK-Scotland where apprenticeships are available at four levels: modern apprenticeships at level 2 and level 3; technical apprenticeships at level 4; professional apprenticeships at level 5 ⁽¹³⁾);

(c) by occupations and type of qualification in Poland: the vocational preparation of young persons may be organised by a craftsman (craft sector) and by an employer who is not a craftsman, and distinguishes between:

- (i) occupational training (*nauka zawodu*) (*) aiming at preparing an apprentice to work as a qualified worker or a journeyman in the related vocational education occupations. The apprentice receives training in occupation falling under 'classification of vocational education occupations'. Where training is provided by craftsman, the apprentice may be trained in a vocational education occupation which corresponds to a particular craft and involves a journeyman exam, or in an occupation which, although not included in the 'classification of vocational education occupations', is listed in the 'classification of occupations and specialisations for labour market needs' ⁽¹⁴⁾. In latter case, the examination commission of chambers of craft carries out the journeyman exam;
- (ii) training to perform a specific job (*przyuczenie do wykonywania określonej pracy*) which aims at preparing a young person to work as a vocationally trained worker. Training may cover only some selected work activities related to learning an occupation. As with occupational

⁽¹³⁾ The Scottish technical apprenticeships at level 4; professional apprenticeships at level 5 were not reported in the mapping.

⁽¹⁴⁾ Classification of occupations and specialisations for labour market needs includes the list of occupations to be found on the labour market and all vocational education occupations.

training, training to perform a specific job may concern vocational education occupations as well as those which do not fall under 'classification of vocational education occupations' but are listed in the 'classification of occupations and specialisations for labour market needs'. A young person employed by a craftsman takes the exam at the examination commission of chambers of craft. A young person employed by an employer who is not a craftsman takes the exam directly with the employer;

- (d) by type of contract: the in-company part of the Estonia workplace-based learning may be formalised either by a trilateral apprenticeship contract (school, learner, company) or by a work contract signed between the company and the student. In the latter case, the type of contract signals a shift from education towards employment and the company has a higher financial contribution and more influence in the in-company training part of the scheme.

While Estonia workplace-based learning, may be approached as a whole for the purpose of the comparative analysis, the other four schemes need to be approached by sub-schemes, given the significant differences distinguishing them. Annex 1 provides the list of schemes and sub-schemes covered by the following sections (29 schemes and sub-schemes in 24 countries). For ease of reference all 29 schemes and sub-schemes are referred to as 'apprenticeship schemes'.

CHAPTER 3.

Applying a purposive approach to understanding apprenticeship

The previous chapter signalled the existence of conceptual differences across countries, and, within countries, of approaches to how apprenticeship is conceived. Such variation allows for a high degree of heterogeneity within the same scheme, as well as the existence of several schemes within a country (for example, at different levels of education and training). The aim of this chapter is to understand what accounts for these differences and the convoluted nature of national definitions by applying a purposive approach. This type of approach is preferred in an attempt to understand what is at the core of the conceptual differences that lead to difficulties in having a shared understanding across countries, and even within the same country, between different stakeholders, as Cedefop's thematic country reviews on apprenticeships show ⁽¹⁵⁾.

Understanding of the concept of apprenticeship through applying a practical and descriptive definition fails. It is often difficult to identify which learning opportunities may or may not be covered by the term apprenticeship, particularly in the context of the development of other forms of work-based learning such as school-based vocational education and training (VET) with compulsory work placements.

3.1. Main purposes and functions associated with apprenticeships

In recent years, in the context of finding way to combat youth unemployment and with the dissociation of qualifications from the types and modes of

⁽¹⁵⁾ Between 2014 and 2017, Cedefop carried out and concluded thematic country reviews on apprenticeships in five countries: Greece, Italy, Lithuania, Malta and Slovenia (Cedefop, 2015a; 2015b; 2017a; 2017b; 2018).

education and training leading to them ⁽¹⁶⁾, there has been a shift towards a broader and more flexible interpretation of the purpose of apprenticeships.

The mapping and analysis carried out within this study suggests that this process resulted in two main distinct purposes and functions attached to apprenticeships that now exist side by side:

- (a) function group A, apprenticeship as an education and training system: apprenticeship aims at providing people with full competence and capability in an apprenticeable occupation or trade (clear and established education and training function).

In this group the apprenticeship system is distinct from the school-based VET system (with or without compulsory work placements).

Apprenticeship as an education and training system tends to be the predominant model of initial VET (IVET is mostly organised as apprenticeship training) or it exists side by side with school-based VET. In the latter case, the two systems are clearly distinct in scope (apprenticeships are mainly restricted to nationally defined apprenticeship training occupations or trades), output (apprenticeship qualification), content and form of organisation (apprenticeship curricula or training standards and apprenticeship programmes), as well as governance system.

Apprenticeship is linked to apprenticeship training trades or occupations formally and commonly recognised as such by authorities and public at large.

The apprenticeship qualification is unique to apprenticeship training (as in journeyman, tradesman qualifications) and is a trademark on the labour market, though it is not a statutory or mandatory requirement for employment in such a trade. The apprenticeship qualification is underpinned by apprenticeship training standards; it signals that it was achieved in a certain way guaranteed for all those studying for a certain apprenticeship qualification. The value of the qualification is given by both content and the way the training leading to it was organised and delivered.

Apprenticeship qualifications are delivered via well-structured apprenticeship programmes ⁽¹⁷⁾. The volume and content of in-company

⁽¹⁶⁾ Also supported by the learning outcome approach (and unitisation) on the basis of which the types and modes of training are equally valid, as long as the learning outcomes forming a qualification are achieved.

⁽¹⁷⁾ This does not exclude a certain degree of adaptability to cater for the learners' needs.

training is valid and binding for all companies delivering it; there is little room for adaptation at company level. This would make apprentices employable in the wider labour market and equate apprenticeship status with qualified worker.

Apprenticeship is governed by specific and clear structures at all levels (ranging from decision-making and design to implementation);

- (b) function group B, apprenticeship as a type of VET delivery within the formal VET system: apprenticeship aims at providing a diverse way to deliver VET to achieve formal VET qualifications by bringing people into the labour market (mixed education and employment functions).

Apprenticeship and other types of VET delivery (such as school-based with or without compulsory work placements) are equivalent means of reaching a VET qualification, and train vocationally skilled workers. The different types of VET delivery may complement each other or replace each other in delivering the qualifications; they may also address the same learners and same companies. Generally, qualifications do not specify whether they are achieved in apprenticeship or other types of VET delivery. The value of the qualification is given by its content and not by the way the training is organised and delivered.

By bringing people into the labour market, apprenticeship may share goals with active labour market policies based on training, hence it is often associated with the employment function, even though linked to formal qualifications.

In principle, apprenticeship potentially covers the whole spectrum of the available (occupational) training standards in the VET system (shared scope with other types of VET delivery).

Apprenticeship and other types of VET delivery fall under overall VET system governance; but apprenticeship-specific governance structures may exist, particularly at operational level.

Apprenticeship schemes in this group are only exceptionally delivered via apprenticeship-specific programmes (B1). Most commonly, apprenticeship as a type of VET delivery is delivered as individual learning pathways, with various degrees of flexibility: as full individual pathways (organised fully as apprenticeships, B2) or as partial individual pathways (apprenticeship is combined with other types of VET delivery, B3), based

on VET programmes or curricula or directly on (occupational) training standards.

The in-company training part of apprenticeship as a type of VET delivery (B) may be less or not at all regulated and vary (length-wise and content-wise) from company to company, with in-company training often being firm-specific. As a result, apprenticeships may not be valued beyond the company that provided the placement, with the risk that apprentice employability is confined to internal labour markets;

- (c) function group C, apprenticeship as a hybrid system: apprenticeship is aimed at offering young people a way of reaching a qualification by bringing them into the labour market (strong link with social inclusion and employment).

Hybrid function group C combines elements of groups A and B but does not fully fall under either of the two.

Similarly to function group A, schemes belonging to group C have their own and clear identity: they are delivered by specific apprenticeship programmes and lead to specific qualifications. However, programmes are less structured, qualifications are identified as non-formal, and these schemes are dissociated from the formal education and training system.

Similarly to function group B, apprenticeship as a hybrid system refers to the same (occupational) training standards as other training options, and the in-company training part of the apprenticeship programme may be less or not at all regulated and may vary from company to company. Programmes train vocationally skilled workers.

Table 3 summarises the function groups and aims to allocate the selected apprenticeship schemes (as per Annex 1) according to the three groups. More than aiming at scientific meticulousness, the allocation seeks to sketch the status of apprenticeships across the 24 countries at a certain point in time ⁽¹⁸⁾ and bring new angles into the policy debates.

⁽¹⁸⁾ At the moment of the data collection (first half of 2016).

Table 3. **Function group overview and allocation of apprenticeship schemes by group**

	Group A
Description	An education and training system
Purpose	Providing people with full competence and capability in an apprenticeable occupation or trade
Main function	Education and training function
Status of graduate for the labour market	Apprenticeship qualified worker
Governance	Apprenticeship-specific
Qualification	Apprenticeship-specific
Training standards	Apprenticeship-specific
In-company training	Predefined and same for all companies
Set-up	Apprenticeship programme
Schemes	AT, dual apprenticeship DE, dual system DK, apprenticeship HR, unified model of education ^(b) IE, apprenticeship qualification IS, apprenticeship NO, upper secondary vocational programmes PL, vocational preparation of young persons: occupational training (craft sector)

Group B			Group C
A type of VET delivery within the formal VET system			A hybrid apprenticeship system
Providing a diverse way to deliver VET to achieve formal VET qualifications by bringing people into the labour market			Offering young people a way of reaching a qualification by bringing them into the labour market
Mixed education, training and employment functions			Strong link with social inclusion and employment
Vocationally skilled worker			Vocationally skilled worker
Under the umbrella of the overall VET system, apprenticeship-specific governance structures may exist, particularly at operational level			Apprenticeship-specific (employment authorities)
VET qualifications (deliverable in different ways)			Apprenticeship-specific
Shared with other types of VET delivery			Shared with other training options
Less regulated and variable (at school-company level)			Less regulated and variable (at school-company level)
B1. Apprenticeship programme (rare)	B2. Full apprenticeship individual pathways (only)	B3. Full and partial apprenticeship individual pathways ^(a)	Apprenticeship programme
NL, dual pathway PT, apprenticeship programmes	BE-fl, part-time vocational secondary education with part-time or apprenticeship contract BE-fl, apprenticeships for SMEs with part-time or apprenticeship contract EE, workplace-based learning FR, apprenticeship contract FR, professionalising contract LU, apprenticeship contract ^(c) RO, apprenticeship at the workplace UK-England, SASE apprenticeships UK-Scotland, modern apprenticeships	BE-fr, dual training/dual contract (education subsystem) ES, dual VET with apprenticeship contract FI, apprenticeship training HU, dual vocational training with apprenticeship training contract IT, type 1 apprenticeship in upper secondary education IT, type 3 higher education apprenticeship SE, apprenticeships in upper secondary	BE-fr, dual training/dual contract (vocational training subsystem) CY, new modern apprenticeship EL, EPAS apprenticeship

(^a) Schemes may also be organised in full pathways.

(^b) Even though placed under function group A, the Croatian scheme, unified model of education, does not fully reflect the features of the function group; while it was created at the initiative of the craft sector in the mid-1990s as a scheme providing people with full competence and capability in a craft related occupation or job and shared the characteristics of group A schemes, succeeding reforms have drifted this scheme away from this group and towards group B: the in-company training is weakly regulated and variable (at the level of the single school-company), the governance is increasingly shifted towards the responsibility of the education and training authorities (away from the craft sector). At the time of data collection, the scheme was a borderline case that lacked a clear identity even at national level, without clear ownership either on the education and training side or on the trade system side.

(^c) The Luxembourg apprenticeship contract is a borderline case (and an outlier within B2); while it may be used as part of three different types of vocational programmes, the training offered for the purpose of one of these programmes (*certificat de capacité professionnelle*, CCP) is always provided under an apprenticeship contract: it may be argued that CCP is, in practice, an apprenticeship-specific qualification.

The apprenticeship contract (*contrat d'apprentissage*), as defined in the reform, may be used as part of three different types of vocational programmes leading to different types of certificates or diplomas:

- the vocational capacity certificate (*certificat de capacité professionnelle*, CCP) at level 2 of the European qualifications framework (EQF) (normal length of study: three years) is designed for people facing learning difficulties who are less likely to succeed in other tracks. A CCP holder is considered a semi-skilled worker, and a skilled worker after two years of seniority in the profession/occupation of the qualification;
- the vocational aptitude diploma (*diplôme d'aptitude professionnelle*, DAP) at level 3 of the EQF (normal length of study: three years) may be organised under an apprenticeship contract or an internship contract;
- the technician's diploma (*diplôme de technicien*, DT) at level 4 of the EQF (normal length of study: four years) represents a high professional level. It is mostly organised under internship contracts.

Source: Cedefop.

3.2. Defining group B schemes

Function group B is, in terms of number of schemes associated with it, the most significant group. However, it also includes schemes that are the most likely to be confused with other types of VET delivery, particularly school-based VET with work placements. Since these schemes share with other types of VET delivery the purpose, function, content (making reference to the same VET programmes or curricula or (occupational) training standards), and output, countries identify and distinguish apprenticeships by referring to specific characteristics:

- (a) type of programme: the Netherlands, dual pathway; and Portugal, apprenticeship programmes (B1 scheme);
- (b) compulsory placement in the company (curricula provide for compulsory in-company training formalised by a contract): Estonia, workplace-based learning (B2 scheme). The scheme distinguishes between two instances: workplace learning with an apprenticeship training contract or with a work

- contract. This introduces a second-level definition which signals capacity for the scheme to get a more prominent employment stance should the training company decide to offer the learner a work contract;
- (c) volume of time spent in the company (Box 2): Sweden, apprenticeships in upper secondary education (B3 scheme). The scheme also introduces the potential for the learner to be employed by the training company through an ordinary work contract, leaving scope for the scheme to achieve a more prominent employment stance;
- (d) contract or paid employment: this is the case in 14 schemes (both B2 and B3):
- (i) B2 schemes:
 - Belgium-fl (both schemes) ⁽¹⁹⁾; France, apprenticeship contract; France, professionalising contract; Luxembourg, apprenticeship contract; Romania, apprenticeship at the workplace; UK-England, apprenticeships (SASE frameworks); UK-Scotland, modern apprenticeships (frameworks);
 - (ii) B3 schemes:
 - Belgium-fr, dual training/dual contract (education subsystem); Spain, dual VET with apprenticeship contract ⁽²⁰⁾; Italy (type 1 and type 3); Hungary, dual vocational training with apprenticeship training contract ⁽²¹⁾; Finland, apprenticeship training.

Defining apprenticeships as type of programme or volume of time spent in the company (a, b, c) does not alter the education function of an apprenticeship type of VET delivery. However, defining apprenticeships as contract or paid employment (d), or by leaving scope for companies to employ a learner using an ordinary employment contract, may reinforce the association of apprenticeships with an employment function, overshadowing or even replacing the education and training function ⁽²²⁾.

⁽¹⁹⁾ Part-time vocational secondary education with part-time or apprenticeship contract, and apprenticeships for SMEs with part-time or apprenticeship contract belong to broader schemes; it is the presence of the contract and the remuneration that distinguishes them from other types of VET delivery within the bigger scheme (Chapter 3).

⁽²⁰⁾ This sub-scheme belongs to a broader scheme and it is the presence of the contract and the remuneration that distinguishes it from other types of VET delivery within the bigger scheme (Chapter 3).

⁽²¹⁾ This sub-scheme belongs to a broader scheme and it is the presence of the contract and the remuneration that distinguishes it from other types of VET delivery within the bigger scheme (Chapter 3).

⁽²²⁾ For example, in Italy, ‘the definition of type 1 as “open-ended employment contract” raises uncertainties in relation to its real nature and prime purpose. (...) Employers tend to consider type 1 primarily as one among the available instruments for filling vacancies, according to companies’ recruitment strategies’ (Cedefop, 2017a, p. 18).

Box 2. Defining apprenticeships in Sweden

Sweden distinguishes its apprenticeship scheme from the school-based VET with compulsory work placements by the volume of the placement in the company: 50% in the case of the apprenticeship scheme and 30% in the case of school-based VET. However, it is to be noted that the 50% applies from the moment the apprenticeship education starts (first, second or third year: full or partial apprenticeship pathways are possible) while 30% applies to the whole duration of a VET programme (from year 1). If the learner in apprenticeship education discontinues his/her placement in a training company and cannot resume placement in another training company, he/she continues his/her studies at school, so the minimum 50% defining the apprenticeship scheme may not be achieved in practice.

Source: Cedefop.

3.3. Evolving approaches to apprenticeship function and purpose

The above allocation of schemes into three groups, done on the basis of the legal frameworks, reflects the situation at the time of data collection; however, reforms have affected, affect and will affect approaches to the apprenticeship function and purpose. The multitude of national reforms of apprenticeships suggests that most countries are still making efforts to fit apprenticeships to aspects such as existing education and training systems and structures, and industrial relations.

There are trends to change and adapt apprenticeship functions, moving from group B to group A (UK-England, the Trailblazer qualifications); from A to B (as in Romania, apprenticeship at the workplace), from C to B (such as Cyprus, new modern apprenticeship; and Greece, EPAS apprenticeship) and, within group B, from B1 to B3, from specific programmes to partial pathways (combination of school-based with apprenticeship types of delivery, as in the Netherlands, dual pathway):

- (a) in UK-England, the new employer-designed standards (Trailblazers) will replace the apprenticeship frameworks (SASE frameworks) by 2020. Apprenticeship frameworks incorporate qualifications that can be gained through other types of VET delivery. However, in the development of

- the new 'Trailblazers' this will no longer be the case as the qualifications gained will be unique to apprenticeships. The rationale is to encourage apprenticeships to be seen as the 'gold standard' and raise their profile. The qualifications will be designed by groups of employers and so aim to meet their needs better (Box 3 provides more information on the 'Trailblazers' apprenticeships and the change of approach in UK-England);
- (b) in Romania, the Labour Code from the 1950s, as well as the laws introduced in 1929, 1950 and 1972, indicated clearly that apprenticeship in the workplace was traditionally targeted at preparing apprentices for a specific occupation within a given sector, under the supervision of a foreman. In 2013, apprenticeship in the workplace was targeted at increasing the level of qualifications among young people and supporting their entry to the labour market;
 - (c) the latest policy developments in the Cyprus new modern apprenticeship (2015) and the Greece EPAS apprenticeship (2016) brought both schemes under the education authorities in an effort to upgrade them and improve their quality. In Greece, this shift was carried out at the same time as the introduction of two other apprenticeship schemes (one provided by EPAL and one provided by IEK training providers). This raises concerns over 'how the provision of apprenticeship specialities across the three schemes will be organised to avoid overlaps and/or competition (for learners, companies) among the three providers' (Cedefop, 2018);
 - (d) in the Netherlands, from 2015/16 school year until 2021 (pilot base), programmes may offer a combination of school-based (BOL) and apprenticeships (BBL). Combined programmes must be school-based in their first year and, then, depending on the duration and the set-up, make a transition to one year or multi-year apprenticeship in the second, third or fourth year.

Box 3. 'Trailblazers' apprenticeships in UK-England

Trailblazers are defined by the following core principles of quality for an apprenticeship that must be adhered to:

- it is a job in a skilled occupation;
- it requires substantial and sustained training, lasting a minimum of 12 months and involving at least 20% off-the-job training;
- it develops transferable skills, and English and maths, to progress careers;
- it leads to full competency and capability in an occupation, demonstrated by achievement of an apprenticeship standard;
- it trains the apprentice to the level required to apply for professional recognition where this exists.

These new standards run along plans to establish a new independent body, the Institute for Apprenticeships, which will regulate the quality of apprenticeships. The institute should provide transparent mechanisms for the approval of apprenticeship standards and assessment plans, and maintain clear quality criteria so that only standards that are valued by employers will be approved and funded. This became fully operational in 2017.

Evaluation of the implementation of Trailblazers undertaken in 2015 suggests that trailblazer networks to take forward the development of the new apprenticeship standards have received broad support. It also suggests that employers believe they now have new or adapted training and assessment models that better meet the needs of their industries. However, some of the challenges encountered were believed to have weakened individual employer ownership. For example, when standards/assessment plans were not approved for the first time there were delays in the time taken to get feedback which caused significant frustration. This was as a result of the large number of stakeholders providing feedback. While the original philosophy may have been to 'let a thousand flowers grow', those involved wanted assurance that their interpretation of policy was correct. The policy focus on getting the steady state arrangements appropriately set is, therefore, valuable.

Source: HM Government, 2015; Department for Business, Innovation and Skills, 2015.

The above examples illustrate instances of migration from one group to another. However, policy developments may also result in formally bringing two schemes into one, while allowing them to keep their distinct functions. It is the case of the Polish vocational preparation of young persons: occupational training (craft sector) (Box 4), where a well-consolidated sector scheme strengthened the links with the formal VET system (education authorities) without losing its function and purpose.

Box 4. Poland, vocational preparation of young persons: occupational training (craft sector)

Originally (1940s) the vocational preparation of young persons associated with basic vocational school (the first-degree trade school) was designed for the socially disadvantaged young people and was distinct from the craft system, though applying the same rules. The craft, in turn, has been providing training according to its own system for a long time, but began to rely on the 'vocational preparation of young persons' format, and cooperate with the basic vocational schools in the 1950s (due to available funding). Thus, vocational preparation of young persons is offered in the craft sector and outside it.

Source: Cedefop.

3.4. Apprenticeship schemes in education and training systems

3.4.1. Function group A schemes (apprenticeship as an education and training system)

In this group the place of apprenticeships as a system is clear in the overall education and training system. All schemes lead to a formal (linked to national qualifications framework) specific apprenticeship qualification at upper secondary level ⁽²³⁾. Three out of the five schemes do not foresee an upper age limit to enrolment in the corresponding apprenticeship programmes, as Table 4 shows.

⁽²³⁾ The Polish sub-scheme vocational preparation of young persons: occupational training (craft sector) may also be linked to 'non-school professions'. In the case of the non-school professions, defined by the Regulation of the Minister of Labour, vocational preparation of young persons takes place at the craftsman's premises. The examination commission of chambers of craft carries out the journeyman exam for these professions. Non-school professions can be performed after completing an apprenticeship and obtaining a journeyman or a master qualification.

Table 4. **Eligibility age for group A schemes**

Apprenticeship scheme	Eligibility age
AT, dual apprenticeship DE, dual system IS, apprenticeship	15+
DK, apprenticeship IE, apprenticeship	16-17
HR, unified model of education	14-16
NO, upper secondary vocational programmes	16-19 (they have the statutory right to three years upper secondary education)
PL, vocational preparation of young persons: occupational training (craft sector)	16-18

Source: Cedefop.

Within this group, apprenticeships are equivalent to IVET – VET at upper secondary level in the following countries: Denmark, Germany, Ireland (Box 5), and Norway.

Box 5. **Apprenticeships distinct from other vocational opportunities in Ireland**

In Ireland, apprenticeships are distinct from other vocational opportunities on offer; it is not currently possible to switch tracks between apprenticeships and VET. VET in Ireland generally takes place at post-secondary non-tertiary level rather than at upper secondary level. The few programmes taking place at upper secondary level are mostly provided within the further education and training sector rather than the second level system. Such programmes are typically aimed at the provision of second chance education options for the unemployed and/or early leavers from education.

Source: Burke and Condon, 2016.

In the remaining four countries (Austria, Croatia, Iceland⁽²⁴⁾ and Poland), apprenticeships exist side by side with the school-based VET system at same

⁽²⁴⁾ In Iceland, apprenticeships are the dominant form of (I)VET and around half of all learners in VET take the apprenticeship route. It is mainly used within the traditional trade professions.

level but the two systems are clearly distinct, particularly as apprenticeships have a specific and unique occupational scope.

When apprenticeships are equivalent to IVET, there are safety nets (except for Ireland) that allow apprentices who cannot find placements to finalise their studies and get the qualification (Box 6). However, in Norway, beneficiaries of the safety net do not get a journeyman certificate similar to the learners undergoing training in a real work environment; they receive an upper secondary vocational qualification leaving certificate, strongly signalling and valuing the way in which the apprenticeship qualification was achieved. Among the countries where the apprenticeship system coexists with other VET systems, Austria has a safety net for those persons who want to qualify for a certified trade and cannot find a training company; Iceland also has a unique approach when students cannot find placements for certain apprenticeable occupations.

Box 6. **Safety nets for group A schemes**

Austria: the supra-company apprenticeship scheme was introduced in 2008 as a safety net for those learners who could not find an apprenticeship placement in the dual apprenticeship scheme.

Germany: as an alternative exceptional route towards an apprenticeship qualification, external candidates, who have not participated in any prior formal training, may access the final examination at the chamber.

Denmark: learners who are not able to conclude an apprenticeship contract may undertake the practical parts in so-called placement centres set up in connection with vocational schools (meant to emulate enterprise training). Enrolment in the placement centres happens only when all possibilities for a normal apprenticeship contract are exhausted.

Iceland: for some occupations where it is not feasible for learners to find placements in the country, they are encouraged to try to get placements abroad; in this case, cross-country mobility serves as a 'safety net'.

Norway: a safety valve in the form of third year of practical training in school is offered to pupils who do not find a placement after having completed two years of training; if workplace training leading to trade or journeyman's certificate is not available, school-based VET is offered and the student can obtain a leaving certificate of upper secondary vocational qualification.

Ireland seems to have no safety nets; instead, the concern is to ensure minimum good performance by apprentices. It addresses the issue of low achievers through a three-strike rule. This is included in the code of practice to which both parties (apprentice and training company) subscribe as part of the apprenticeship contract and excludes permanently, from current and future apprenticeships, those who fail to reach the required standard on three occasions during the off-the-job phase, or those who fail to attend the off-the-job assessment three times. The objective of this rule is to provide apprentices with the opportunity to retake their examination but also to allow employers to terminate a contract where underachievement is constant.

3.4.2. Function group B schemes (apprenticeship as a type of VET delivery)

Having apprenticeship as a type of VET delivery that aims at providing a diverse way of achieving formal VET qualifications ⁽²⁵⁾ by bringing people into the labour market, it may apply – as do most of the schemes in this group – to different qualification levels both in IVET and/or continuing VET (CVET). This makes the picture on apprenticeships and generally on VET at national level quite complex, raising the question of whether and to what extent apprenticeships are an equivalent and transparently comparable type of VET delivery across qualification levels and education and training sectors (IVET and CVET).

While sub-group B1 schemes (implemented via programmes) apply to the upper secondary VET level only, the picture is more heterogeneous when it comes to B2 and B3 group schemes (Table 5), all of which (except for Sweden, apprenticeships in upper secondary, and Estonia, workplace-based learning) are defined as an individual contract or paid employment. Such a definition aids the extension of apprenticeship schemes or sub-schemes to virtually all education levels, VET qualifications, sectors of the education and training system, and active labour market policies.

⁽²⁵⁾ And also non-formal qualifications (not linked to national qualifications frameworks); the same scheme may be linked to both formal and non-formal qualifications, e.g. Spain, dual VET.

Table 5. **Qualification levels: B2 and B3 apprenticeship schemes**

B2. Full apprenticeship individual pathways (only)	B3. Full and partial apprenticeship individual pathways (°)
Upper secondary only	
BE-fl, part-time vocational secondary education with part-time or apprenticeship contract BE-fl, apprenticeships for SMEs with part-time or apprenticeship contract UK-Scotland, modern apprenticeships (frameworks) (b)	BE-fr, dual training/dual contract (education subsystem) SE, apprenticeships in upper secondary (c)
More than one level	
EE, workplace-based learning FR, apprenticeship contract FR, professionalising contract LU, apprenticeship contract RO, apprenticeship at the workplace UK-England, apprenticeships (SASE frameworks)	ES, dual VET with apprenticeship contract (d) FI, apprenticeship training HU, dual vocational training with apprenticeship training contract IT, type 1 apprenticeship IT, type 3 apprenticeship

(a) Schemes may also be organised in full pathways.

(b) It coexists with apprenticeship schemes at other levels.

(c) It coexists with apprenticeship schemes in adult education.

(d) The dual VET scheme may also be implemented in the non-formal education and training sector (outside of the governance of the education authorities)

Source: Cedefop.

Annex 2 provides a detailed overview of the levels to which the group B apprenticeship schemes apply and the corresponding statutory ages for enrolment.

Most schemes set lower and upper age limits for enrolment, addressing young people. Exceptionally, some schemes are also open to adults, potentially also offering more training opportunities for adults in support of their reintegration into the labour market or upskilling: Estonia, workplace-based learning; Finland, apprenticeship training; Hungary, dual vocational training; Luxembourg, apprenticeship contract; UK-England, SASE apprenticeships; and UK-Scotland, modern apprenticeships. UK-England and UK-Scotland schemes are open to people above 15 but the allocation of the public funding favours participation of young people.

With the exception of Sweden, UK-England and UK-Scotland, where apprenticeships are an alternative to other types of VET delivery but not the

main type, the schemes in all the other countries are second chance schemes. Use of apprenticeships as a second chance way of studying for achieving a VET qualification signals that the school-based VET type of delivery is the stronger/preferred choice (considering that both apprenticeship and school-based types of delivery lead to the same qualifications).

In contrast to the schemes encompassing apprenticeships as a VET system, those where apprenticeships are used as a type of VET delivery do not need safety nets. If there are no placements offered, (young) people may achieve the desired certificate or qualification through other types of VET delivery: at schools, in workshops, and simulated work environments. Further, if the placement in a company is interrupted during apprenticeship training and cannot be replaced with another company, the learner resumes the rest of his/her studies at school; the minimum placement of the learner in the company is not guaranteed, even if foreseen by the law (as in Sweden).

When the apprenticeship training is initiated by the training company (as in the UK), the issue of shortages of placements (and so, of safety nets) does not arise as supply equals apprenticeship training demand. Single employers have a large role in determining how many people start an apprenticeship training as all apprentices have to be employed.

3.4.3. Function group C schemes (apprenticeship as a hybrid system)

All schemes are situated at the upper secondary level and are second chance routes for young people ⁽²⁶⁾ who want to get a qualification or enter the labour market. Being second chance schemes, they act as safety nets for people who need to achieve a qualification and/or access labour market, and do not manage through other options (such as the formal system).

The related apprenticeship qualifications, despite being referenced to the national qualifications frameworks, are not recognised or considered equivalent to those issued by the education authorities, even though they refer to the same (occupational) training standards.

In this group, employment authorities in Greece and Cyprus introduced apprenticeships aiming at providing an option that trained young people while bringing them into the labour market; the education authorities only

⁽²⁶⁾ Belgium-fr, dual training/dual contract (vocational training subsystem) and Greece, EPAS apprenticeship, foresee minimum and maximum statutory age limits for enrolment 15-25 and 16-23 respectively. Cyprus, new modern apprenticeship does not foresee any upper age limit to enrolment (15+).

offered school-based programmes. However, apprenticeships remained in competition with the traditional school-based formal system under the education authorities and also the inferior option. In Belgium-fr, the same scheme is divided into two sub-schemes by the system of governance. The employment driven sub-scheme – the dual training/dual contract (vocational training subsystem) – coexists with the education-driven one, the dual training/dual contract (education subsystem); both refer to the same occupational training standards. If in Greece and Cyprus competition is between apprenticeships and school-based; in Belgium-fr, competition is also between the two sub-types of apprenticeships.

3.5. Concluding remarks: apprenticeship functions and purposes

Echoing the trend to open up the ways a qualification is achieved and to offer individualised learning pathways to those studying for a qualification, most countries opted for apprenticeship as a type of VET delivery to diversify the ways of achieving formal VET qualifications by bringing people into the labour market; in such cases apprenticeships are implemented with various degrees of flexibility.

Countries have exceptionally opted for a structured VET delivery approach (via apprenticeship-specific programmes), an approach which they share with the group A scheme countries. However, the main approach to the implementation of apprenticeships as a type of delivery is characterised by a high level of flexibility delegated to the level of school-individual-company and facilitated/supported by the definition of apprenticeships as a contract or paid employment. The highest degree of flexibility peaks with the partial apprenticeship individual pathways that combine with other types of VET delivery to support an individual to reach the learning outcomes and acquire a formal VET qualification. This high degree of flexibility excludes comparability of the individual apprenticeship learning experiences and may explain why the qualifications do not indicate if achieved in apprenticeships or other types of VET delivery. Rhetorically, apprenticeship is recognised as the highest valuable type of VET delivery; in practice, by dissociating qualifications from apprenticeships, this value is not fully acknowledged or reached, with the result that the value of apprenticeships may not be assessed transparently beyond the company that provided the placement.

It is reasonable to expect, instead, that schemes leading to qualifications unique to apprenticeships have higher status and value on the market.

Using apprenticeship as a type of VET delivery to diversify the ways to achieve formal VET qualifications is costly but comparatively easy to introduce formally as a learning option at various education and training levels and for a broad spectrum of qualifications. Apprenticeship as a type of training delivery is also being used for the purpose of delivering training-related active labour market measures.

Besides issues of comparability, function (education, employment, both education and employment) and image (association with active labour market policies), this also raises issues of competition: not only with other forms of VET delivery (which increasingly use placements in companies as part of their work-based learning strategies) but also between different apprenticeship schemes. Where education and training systems have a tradition of education-driven VET organised in school-based delivery, the apprenticeship type of VET delivery often results in a second chance alternative of achieving a formal qualification. This, in turn, signals that the school-based VET type of delivery is the stronger/preferred choice (considering that both apprenticeship and school-based types of delivery lead to the same qualifications).

Competition between apprenticeships and different other types of VET delivery (particularly school-based with compulsory work placements), or between apprenticeships themselves, extends to companies that may not easily understand the differences between the different types of VET delivery or between the various apprenticeship schemes or sub-schemes. When apprenticeships are defined as a contract (particularly an ordinary employment contract) or paid employment, the decision to take an apprentice may be triggered by companies' manpower needs rather than being part of their investments in human capital formation. Such an approach can account for immediate positive labour market outcomes of learners undergoing apprenticeship training (though evidence on the long-term outcomes is controversial) but is likely to impact on the level and quality of the in-company training.

Competition is less of an issue in countries with schemes belonging to function group A, where apprenticeships are distinct from the school-based VET system. While apprenticeships are also a specific type of VET delivery in group A scheme countries, here apprenticeships are organised within specific national systems and organically associated with the corresponding

qualification; the type of VET delivery and qualification are together a labour market brand among learners and their parents. This is also what makes apprenticeship an education and training system, characterised by a clear identity, relevance (to labour market needs and qualification purposes), transparency (what and how) and comparability and quality of the learning experiences and of the final outputs.

Being the only system at upper secondary level or having its own apprenticeable scope eliminates the risk of competition with other systems both for learners and companies. Since the whole skill formation system, or part of it, relies exclusively, or heavily, on the apprenticeship system, the labour market depends greatly on it for qualified workforce; this creates a virtuous circle whereby companies need to train to ensure skill supply for the entire labour market or for part of it.

However, building such a system takes time, involves clear-cut policy choices and changes of mindsets. Evolutions towards this approach to apprenticeship can only happen with a gradual, step-by-step approach.

CHAPTER 4.

Main apprenticeship scheme organisation features

Chapter 3 looked at how countries approach apprenticeships from a purposive perspective; this chapter aims to analyse if and how the apprenticeship schemes differ, even within the same functional group, from an organisational point of view, by looking at a number of characteristics of the schemes as designed in the national regulations. The selected characteristics are: alternation and its form, duration of apprenticeship training, sharing of responsibility between the education and training and the labour market sides, and relationship between the apprentice and the company.

4.1. Presence and form of alternation

Apprenticeships traditionally took place entirely at the employer facilities, with the master-apprentice relationship at their core. The principle of alternation (school and company learning) is relatively recent; it finds its roots at a time when workplace-based learning is becoming insufficient for the more formal and organised forms of learning needed, which schools can provide instead (Billett et al., 2014, p. 446).

This section will look at whether the schemes foresee compulsory alternation or not and, where they do, what form alternation takes.

4.1.1. Schemes implemented via apprenticeship programmes (A, B1 and C schemes)

Analysis of the A, B1 and C apprenticeship schemes shows that alternation between school and company is compulsory for all schemes, except for Poland, vocational preparation of young persons, occupational training (craft sector), in which case school attendance is not compulsory (Box 7).

Box 7. Organisation of the Polish vocational preparation of young persons: occupational training (craft sector)

Poland, vocational preparation of young persons: occupational training (craft sector) includes:

- practical vocational training, which is organised at the employer's premises on the principles set out in separate regulations;
- additional theoretical education. This can last no longer than 36 months (with exceptions). Theoretical preparation can be accomplished by sending an apprentice to basic vocational school or vocational training centre or by organising theoretical learning by the employer. In this case the employer must ensure those delivering the theoretical learning hold a pedagogical qualification, statutorily specified. In practice, all employers send young apprentices to basic vocational schools or vocational training centres to complete this part of training.

Source: Cedefop.

As shown in Table 6, in most group A schemes (4/7), alternation is in block or by phase (in Denmark, Iceland, Ireland, Norway); while in Germany and Austria, the form of alternation varies by programme or takes into account individual economic and regional sector needs. Moving to apprenticeship programmes of group B1 and C schemes, the form of alternation is weekly, with most days in the company alternating with a few days at school.

Table 6. Alternation for A, B1 and C schemes (implemented via specific apprenticeship programmes)

Apprenticeship scheme	Form of alternation (how the alternation is organised)
Group A	
AT, dual apprenticeship	Variety of organisation forms: consultation between business and school instruction representatives and takes into account the individual economic and regional sectors needs.
DE, dual system	Varies: details are specified in the curriculum documents for the different training programmes.
DK, apprenticeship	Block release up to one year in enterprise and up to three months in school (except for the initial period which is entirely school-based and lasts up to 40 weeks).

Apprenticeship scheme	Form of alternation (how the alternation is organised)
HR, unified model of education	Not available.
IE, apprenticeship	Apprenticeship consists of seven phases: three off the job and four on the job. Phases 1, 3, 5, and 7 take place with employer. Phases 2, 4, and 6 off-the-job, total duration 40 weeks of which 26 are in the training centre (phase 2) and two seven-week periods (phases 4 and 6) in institutes of technology.
IS, apprenticeship	Four to six semesters basic training at school, remaining time is spent in the company. The learners sign the contract after the basic training period.
NO, upper secondary vocational programmes	2+2 model: two years school-based training and two years enterprise training. The latter corresponds to one year in school. Detailed organisation varies by programme and trade.
Group B1	
NL, dual pathway	One day at school and four days in company.
PT, apprenticeship programmes	Not available.
Group C	
BE-fr, dual training/ dual contract (vocational training subsystem)	One-two days/week school and three-four days/week company.
CY, new modern apprenticeship	Three days/week in company during the first four semesters and two days/week during the last two semesters.
EL, EPAS apprenticeships	Workplace learning may take place from four and up to six days a week, usually up to six hours a day, in private or public-sector enterprises on terms specified in the relevant apprenticeship contract. Learners attend the EPAS schools three or four days per week (for an average of two hours/day) after their spell in the enterprises, plus one day of the week when they spend four hours at school on subjects offered in classrooms and workshops.

NB: Poland, vocational preparation of young persons: occupational training (craft sector) is not included in the table as school attendance is not compulsory.

Source: Cedefop.

4.1.2. Schemes implemented via apprenticeship individual pathways (B2 and B3 schemes)

Among the schemes implemented via apprenticeship individual pathways (B2 and B3 schemes), which are the bulk of the group B schemes, alternance is not always compulsory. The number of schemes where school-company

alternance is compulsory is slightly higher than the number of schemes where it is not (but not excluded either), as illustrated in Table 7.

Most of the B2 schemes (6/9 schemes) do not foresee compulsory school attendance, so the full apprenticeship individual pathways may be delivered exclusively in company.

With the exception of Spain, dual VET with apprenticeship contract, all B3 schemes foresee compulsory school attendance: apprenticeship individual pathways, even when partial, must be delivered in alternance.

Table 7. Presence of alternance across the B2 and B3 apprenticeship schemes

Compulsory school-company alternance		School attendance is not compulsory	
B2 schemes	B3 schemes	B2 schemes	B3 schemes
BE-fl, part-time vocational secondary education with part-time contract or apprenticeship contract	BE-fr, dual training/ dual contract (education subsystem) FI, apprenticeship training	EE, workplace-based learning FR, apprenticeship contract FR, professionalising contract	ES, dual VET with apprenticeship contract
BE-fl, apprenticeships for SMEs with part-time contract or apprenticeship contract	HU, dual vocational training with apprenticeship training contract	RO, apprenticeship at the workplace	
LU, apprenticeship contract	IT, type 1 apprenticeship in upper secondary education IT, type 3 apprenticeship for higher education SE, apprenticeships in upper secondary	UK-England, apprenticeships (SASE frameworks) UK-Scotland, modern apprenticeships (frameworks)	

Source: Cedefop.

Where school-company alternance is neither compulsory nor excluded, the dichotomy is not between the learning venues but between theoretical and practical learning; the underlying organisational principle is the combination of the two units of learning. In such cases the company replaces the school

in also delivering theoretical training (on the basis of its potential to provide sufficient learning); alternatively, the company may host theoretical training delivered by the school teachers and trainers at its premises (Box 8).

Box 8. Training provision organisation in B2 and B3 apprenticeship schemes where school attendance is not compulsory

- Estonia, workplace-based learning: all training may be delivered in one large company. VET school teachers are also teaching the theoretical part in the company;
- Spain, dual VET with apprenticeship contract: training may be provided by companies and cost is reimbursed by the public employment services through reductions in companies social security contributions;
- France, apprenticeship contract: varies, stipulated by the *Centre de formation d'apprentis* (CFAs) with companies; apprenticeship training can be held fully or partly (jointly shared with training centres for apprentices) at the employer location;
- France, professionalising contract: theoretical training may also be delivered by the employer if it has the capacity to offer this service;
- Romania, apprenticeship at the workplace: includes both theoretical and practical training at the workplace. The scheme is designed to have training taking place mostly at the workplace. The employer is obliged to ensure that the apprentice has access to practical and theoretical training, as well as to all necessary conditions so that the apprenticeship coordinator fulfils all duties in relation to apprentice training;
- UK-England, apprenticeships (SASE frameworks): work-based learning providers or further education colleges normally provide courses leading to qualifications, or provide the knowledge component of apprenticeship (IPPR, 2011). This means that they act as the delivery agent for the off-the-job training and assessment of apprentices. Sometimes, employers may act as training providers in-house, in which case they will operate a training branch which offers the off-the-job training to apprentices. Training providers are quality assured by Ofsted, the education inspectorate body in England. Providers work in coordination with employers to provide apprenticeships. Employers are responsible for all work-based elements of the apprenticeship;
- UK-Scotland, modern apprenticeships (frameworks): there is no obligation for out-of-company training but only to provide access to a training provider. Some apprenticeships, for example customer services, can be delivered entirely in the workplace by the employer and tend to be completed more quickly.

Where school-company alternance is compulsory, the form of alternation varies on a case-by-case basis in 5/9 schemes, as Table 8 shows.

Table 8. Organisation of alternation for the B2 and B3 schemes with compulsory alternation between school and training company

Apprenticeship scheme	Form of alternation (how the alternation is organised)
Group B2	
BE-fl, part-time vocational secondary education with part-time contract or apprenticeship contract	Two days per week at school and three days per week in company
BE-fl, apprenticeships for SMEs with part-time contract or apprenticeship contract	One day per week at school and four days per week in company
LU, apprenticeship contract	One day per week at school and four days per week in company
Group B3	
BE-fr, dual training/dual contract (education subsystem)	One to two days per week at school
Fl, apprenticeship training	Varies on a case-by-case basis
HU, dual vocational training with apprenticeship training contract	
IT, type 1 apprenticeship in upper secondary education	
IT, type 3 apprenticeship for higher education	
SE, apprenticeships in upper secondary	

Source: Cedefop.

4.2. Duration of apprenticeship training

It is generally acknowledged that the duration of apprenticeship training is important, first to allow for the alternance (where it is compulsory) to have meaningful periods of time spent in either of the two locations in accordance with learning outcomes achievement; and, second, to fit in companies' work organisation and suit their productive needs, so that apprenticeship appeals to the employer and allows recouping the training investment. Cost-benefit analysis research indicates that apprenticeship training with compulsory alternance should be no less than two years (length varies by occupation or trade).

This section will look at the overall duration of the apprenticeship training and the duration of the in-company training when alternation is foreseen.

4.2.1. Schemes implemented via apprenticeship programmes (A, B1 and C schemes)

As these schemes are implemented via apprenticeship programmes, the overall duration of the apprenticeship training corresponds to the duration of the apprenticeship programmes. In most cases, the programmes last for three years or more (exceptionally only one or two years). In group A schemes, the length of the programmes usually, but not in all cases, varies by trade or occupation. In the case of the B1 and C schemes, the length of the programme does not vary (except for the Netherlands, dual pathway).

For duration of in-company training when alternance is foreseen ⁽²⁷⁾, the time spent in company training is calculated in relation to the overall programme:

- (a) in group A schemes, it is more common than not that the volume of time spent in the company varies by trade or occupation; however the same volume applies within the trade or occupation. It is defined by the relevant social partners in the relevant apprenticeship standards, rather than in national legislation;
- (b) in the case of B1 and C schemes, it is more common than not that the minimum time spent in company training is defined by national regulations and applies across the board, but the actual time spent in the company varies by company on agreement between the school and the training company. However, since the minimum is guaranteed by law, no significant variations are possible within the programme.

⁽²⁷⁾ All the schemes (except the Polish one) defined as programmes foresee compulsory alternation between school and training company.

Table 9. Duration of apprenticeship programmes and minimum in-company training

Apprenticeship scheme	Typical duration the apprenticeship programmes	Minimum share of time spent in in-company training
Group A		
AT, dual apprenticeship	Two to four years (varies by apprenticeship trade)	80%
DE, dual system	Three or 3.5 years depending on the occupation. Duration is specified for each occupation in the respective training ordinance	Minimum 70% (exact % depends on the single apprenticeship programme)
DK, apprenticeship	Three years (typically), four and five years depending on the programme	The law on VET contains no prescription. This is decided by the social partners for each trade. Usually, the ratio is 1:4 (school-company)
HR, unified model of education	Three years	Between 40 and 50% depending on the year of programme
IE, apprenticeship	Four years	Typically 65%, depending on the year
IS, apprenticeship	Three to five years, including basic training at school	Ratio between time in school and time in company varies from 1:1 to 3:1. Occupational councils (representatives of the social partners, schools and the Ministry) devise criteria for the division of learning between school and company
NO, upper secondary vocational programmes	Nine vocational programmes offer three, four or five years of training	Minimum 421 hours, equivalent to 33% of total training time
PL, vocational preparation of young persons: occupational training (craft sector)	Three years	Depends on the agreement with the employer and on the school curriculum. The minimum number of hours of practical education at basic schools is 60.6%
Group B1		
NL, dual pathway	One, two, three or four years depending on the programme	Out of a total of 800 hours/year: minimum 200 hours at school and 600 hours in a company
PT, apprenticeship programme	Three years	Minimum 40% (minimum 1 100 hours and maximum of 1 500 hours out of minimum of 2 800 hours and maximum of 3 700 hours in total)

Apprenticeship scheme	Typical duration the apprenticeship programmes	Minimum share of time spent in in-company training
Group C		
BE-fr, dual training/ dual contract (vocational training subsystem)	Three years	At least 20 hours per week in the company out of 38 hours per week in total
CY, new modern apprenticeship	Three years, six semesters	About 50% (60% during first four semesters, 40% during last two semesters)
EL, EPAS apprenticeships	Two years	Minimum 70%

Source: Cedefop.

Consistent with their function, most group A schemes follow a sector/occupation approach in organising the delivery and a stricter organisation, whereby training companies need to deliver the volume and content as defined in the regulations and which are common at sectoral level for all training companies ⁽²⁸⁾.

B1 and C schemes present a degree of openness in the organisation of the apprenticeship programmes; this allows room for adjustment to the needs of the individual companies subject to the decision of the training providers, in consultation with the single companies.

4.2.2. Schemes implemented via apprenticeship individual pathways (B2 and B3 schemes)

Since these schemes are implemented in the absence of a specific apprenticeship programme, the duration of the apprenticeship training and the volume of time spent in in-company training is specified in the individual apprenticeship pathway (at the level of school-company-individual). There are individual variations and sometimes they are extensive, to the degree that the pathways (even when leading to the same qualifications) are hardly comparable, as illustrated below.

When the apprenticeship schemes offer a full individual apprenticeship pathway to a qualification (B2 schemes), the proxy for the duration of the individual apprenticeship pathway is given by the level/degree of complexity

⁽²⁸⁾ This does not exclude a certain degree of adaptation to the local or training company's specificities/needs.

of the desired qualification and may be expected to coincide with, or be comparable to, the duration of the corresponding VET programme. Though variations may be expected to occur at individual level as defined in the contract between the learner and the training company, generally the individual pathways of the learners studying for the same qualification may be comparable in terms of the overall duration of the apprenticeship training. In terms of volume of time spent in in-company training, when alternation is compulsory (Belgium-fl, both schemes; Luxembourg), the minimum volume of in-company training is also guaranteed and comparable. When alternation is not compulsory (Estonia; France, both schemes; Romania; UK-England and UK-Scotland), learners’ experiences in terms of how much time they spend in company vary, even though studying for the same qualification: some may experience alternation between two learning venues; others may spend the whole time of the pathway only in the company.

Large variations are expected to occur in B2 schemes in relation to the length of the in-company training, but less in relation to the overall apprenticeship training duration. Table 10 provides an overview of the overall duration of the individual apprenticeship pathways and volume of in-company training.

Table 10. **Duration of individual apprenticeship pathways and volume of in-company training: B2 schemes**

Apprenticeship scheme	Duration of the individual pathway	Minimum volume of in-company training as per regulation
Compulsory alternation		
BE-fl, part-time vocational secondary education with part-time or apprenticeship contract	Standard length is three years but can be extended up to five years	15 hours/week in school and 13 hours/week in the company
BE-fl, apprenticeships for SMEs with part-time or apprenticeship contract	Standard length is three years but can be extended up to five years	Eight hours/week in school and 20 hours/week in company
LU, apprenticeship contract	Three or four years depending on the qualification	Varies by sector; typically, four days at the company, one day in school; typically, 80%

Apprenticeship scheme	Duration of the individual pathway	Minimum volume of in-company training as per regulation
School attendance is not compulsory		
EE, workplace-based learning	Varies from three months to two and a half years (depending on qualification)	Two thirds of the curricula must be carried out in company
FR, apprenticeship contract	Minimum and maximum (one to three years depending on the final qualification and may be extended to four years for disabled people). It may also vary between six months and one year	Minimum 400 hours per year for upper secondary level, minimum 750 hours per year at higher level. Further details about alternation and time spent at the <i>Centre de formation d'apprentis</i> (CFAs) and enterprise are determined by the individual CFA.
FR, professionalising contract	Minimum and maximum (six to 12 months, some cases up to 12-24 months)	75-85% of the contract duration. Between 15 and 25% of the total contract duration is dedicated to evaluation, accompanying and training measures carried out by a training centre.
RO, apprenticeship at the workplace	Minimum one year and maximum three years depending on qualification level	No minimum share is compulsory
UK-England, apprenticeships (SASE frameworks)	One to three years (depends on the qualification level)	Apprentices in their first year must spend at least 280 hours in 'guided learning' ^(a) ; 100 hours or 30% (whichever is greater) of all guided learning must be delivered off-the-job.
UK-Scotland, modern apprenticeships (frameworks)	No timescale for completing an apprenticeship and they typically take from around six months to three years to complete	No minimum share is compulsory ^(b)

^(a) Training time spent developing technical skills, knowledge of theoretical concepts and practical skills on the job while being guided.

^(b) More traditional apprenticeships, for example construction and engineering, include a significant amount of classroom-based learning delivered on a block-release basis by a training provider, and can take up to three years to complete.

Source: Cedefop.

In the case of the B3 schemes, the point of reference is a VET programme or curriculum which may be delivered in a full individual apprenticeship pathway (the duration of the apprenticeship pathway equals the duration of the programme or, for learners with difficulties, it is longer) or in a combination between an apprenticeship pathway and a school-based pathway (the duration of the apprenticeship pathway is shorter than the duration of the VET programme). For example, upper secondary apprenticeship education in Sweden can start the first, second or the third year of the corresponding VET programme; a type 1 apprenticeship contract in Italy may be signed at any time during the VET programme.

The actual minimum and maximum possible duration of an individual apprenticeship pathway, while related to the duration of the corresponding VET programme or curriculum, is given by the minimum or maximum duration of the contract (for all B3 schemes ⁽²⁹⁾, except for Sweden, apprenticeships in upper secondary). In Sweden, apprenticeship education starts from the moment the learner spends more than 50% of his/her study time in in-company training.

The relevant legal frameworks allow for contract duration to vary from, as illustrated by these examples:

- (a) one year to six years in Belgium-fr (dual training/dual contract, education subsystem);
- (b) one to three years in Finland;
- (c) six months to four years in Italy.

Accordingly, the minimum volume of the in-company training (when school-company alternation is compulsory) refers to the duration of the contract. This results in further variations of the time a learner actually spends in the company, ranging from, for example:

- (a) 50% of one year to 50% of six years in Belgium-fr;
- (b) 40% of six months to 40% of four years in Italy;
- (c) 70-80% of one year to 70-80% of three years in Finland.

In Sweden, from the moment the apprenticeship education starts, half of the education should comprise in-company learning resulting in variations ranging from 50% of one year to 50% of three years.

⁽²⁹⁾ All B3 schemes, except for Sweden's apprenticeships in upper secondary, are defined as contracts.

The individual apprenticeship pathways, even when leading to the same qualifications, encompass different experiences both in terms of duration of the apprenticeship training and volume of in-company training. In these cases, it is not a comparable type of learning which is guaranteed but a learning experience.

Table 11. **Duration of individual apprenticeship pathways and volume of in-company training: B3 schemes**

Apprenticeship scheme	Typical duration of the corresponding VET programme	Duration of the contract	Minimum volume of in-company training as per regulation
Schemes with compulsory alternation between school and company training			
BE-fr, dual training/ dual contract (education subsystem)	Three years (upper secondary education programmes)	Minimum one year; maximum six years	Minimum 53% of the contract duration (at least 20 hours per week in the company out of 38 hours per week in total)
FI, apprenticeship training	One to three years depending on programme, educational background and work/ life experience of the learner. The length varies: each student has an individual training plan based on core curriculum	It is not defined by law and it is based on individual training plan. The length varies: each student has an individual training plan based on core curriculum	70-80% of the contract duration. The competence-based approach allows for variations: the lengths, training provided by company, training provided by school are individualised and defined in the apprenticeship contract
HU, dual vocational training with apprenticeship training contract	Three years	Varies	No minimum share is compulsory, but in practice 40-80%
IT, type 1 apprenticeship in upper secondary	Three-four years	Minimum six months and maximum four years depending on the qualification	Minimum 40% of the duration of the contract (ranging from 40% of six months to 40% of four years)
IT, type 3 apprenticeship for higher education	Six months to five years	Minimum and maximum (minimum six months and maximum one to five years depending on the qualification)	Minimum 40% of the duration of the contract (ranging from 40% of six months to 40% of five years)

Apprenticeship scheme	Typical duration of the corresponding VET programme	Duration of the contract	Minimum volume of in-company training as per regulation
SE, apprenticeships in upper secondary	Three years	Upper secondary apprenticeship education can start the first, second or the third year of the VET programme	From the moment the apprenticeship education starts, half of the education should comprise workplace-based learning
Schemes where alternation between school and company training is not compulsory (all learning may take place at the company)			
ES, dual VET with apprenticeship contract	Two years	Varies	Minimum 33%

Source: Cedefop.

4.3. Responsibility sharing between education and training and the labour market

Sharing of responsibility between education and training and labour market interests, at different governance levels, is an essential characteristic of apprenticeship. This section looks at the implementation level only, and at the extent to which:

- (a) labour market representatives are involved at operational level via accreditation of training companies and/or monitoring of in-company training;
- (b) companies are held responsible for in-company training delivery by looking at elements such as accreditation, requirements that companies need to fulfil to engage an apprentice, and sanctions in case the company fails to provide training.

4.3.1. Function group A schemes (apprenticeship as an education and training system)

An overview of function A schemes (Table 12) shows that labour market representatives, mostly chambers, or institutions with labour market representatives are involved, in most cases, at operational level. In seven out of the eight schemes (except for Croatia, unified model of education), there are sanctions in case the training company fails to train the apprentice. Similarly, companies need to be accredited in most cases (a clear exception is Poland, vocational preparation of young persons: occupational training (craft sector),

while information for Germany and Ireland is not available). All schemes foresee several requirements that companies need to fulfil to engage an apprentice, the most common being the presence of a mentor or trainer. The volume and content of the in-company training of a specific apprenticeship programme is valid and binding for all companies delivering it (Section 3.1). This is confirmed by the requirements (made explicit in several cases) that companies need to set up an internal training plan in compliance with the curriculum of the programme (as in Norway and Poland) and/or provide apprentices with the full range of learning outcomes associated with the in-company training, as described in the curriculum or assessment book for the specific programme (such as in Ireland).

The picture that emerges is that the labour market side (economic actors and/or social partners, together with the training companies) has responsibility for the delivery and quality of delivery of the in-company training part of the apprenticeship programmes ⁽³⁰⁾.

Table 12. **Overview of responsibility for the learning in the company: group A schemes**

Scheme	Accreditation of company ^(a)	Requirements on employers as per regulation	Who assesses suitability of companies to train (accreditation and/or monitoring)?	Are there any sanctions ^(b) ?
AT, dual apprenticeship	Y	In-company trainer, facilities, equipment	Competent apprenticeship office of the Federal Economic Chamber in collaboration with Chamber of Labour	Y, fines
DE, dual VET	N/A	Mentor, learning support, learning environment, training plan	Chambers: register contracts, monitor employer compliance, organise final examination, provide advice and support to companies	Y
DK, apprenticeship	Y	Machines and tools relevant for the trade (rules are formulated by trade committees for the specific trades)	Trade committees (may delegate to schools)	Y

⁽³⁰⁾ This normally indicates that they are also equally involved in carrying out the final assessment.

Scheme	Accreditation of company (a)	Requirements on employers as per regulation	Who assesses suitability of companies to train (accreditation and/or monitoring)?	Are there any sanctions (b)?
HR, unified model of education	Y	Mentor, learning environment, learning support	Education and training providers	N
IE, apprenticeship	N/A	Employers must provide apprentices with the full range of work specified in the SOLAS workplace assessment book. According to the code of practice: equipment, tools, tutor	SOLAS, the agency of the Department of Education and Skills	Y
IS, apprenticeship	Y	Mentor/tutor, learning support, learning environment	Occupational councils (who also set objectives for the workplace training)	Y
NO, upper secondary vocational programmes	Y	Training enterprise is obliged to set up an internal training plan in compliance with the curriculum of the programme (c), to have a qualified training supervisor	Close monitoring carried out by the county authorities and a local training agency (d) that may be involved in the training arrangements	Y/N (e)
PL, vocational preparation of young persons: occupational training (craft sector)	N	Training plan (f), equipment, tutors, learning support	Supervision over the course of vocational training of young persons employed by craftsmen is exercised by the Crafts Chamber or authorised craft guilds. They control it, check the documentation, observe the process and get feedback from the learners	Y (g)

(a) Before recruiting.

(b) Related to the non-provision of training.

(c) If a training company cannot accommodate all learning, it should take measures for the apprentice to undergo this training (e.g. neighbouring enterprises join forces).

(d) Local training agencies organise around 80% of all enterprise training in the Norwegian apprenticeship system. The agencies are privately run institutions owned by their member firms, and held accountable to a board. Executive representatives from member firms dominate the agency boards.

- (^e) Close monitoring carried out by the county authorities and a local training agency that may be involved in the training arrangements.
- (^f) The employer is obliged to prepare an education programme. Interim and annual assessments for the company part are set by the apprenticeship instructor. Employers must issue a certificate that the students completed their practical activities and followed a programme; without this certificate, apprentices cannot sit the final exam.
- (^g) If the apprentice does not pass the final exam, the employer does not receive a training costs refund and loses the ability to conduct training.

Source: Cedefop.

4.3.2. Function group B schemes (apprenticeship as a type of VET delivery)

An overview of function B schemes (Annex 3) shows a more mixed picture in terms of responsibility for the in-company training.

The labour market representatives such as chambers or institutions with labour market representatives are exceptionally involved at operational level in the case of four schemes:

- (a) Belgium-fl, part-time vocational secondary education with part-time or apprenticeship contract;
- (b) Hungary, dual vocational training with apprenticeship training contract;
- (c) Luxembourg, apprenticeship contract;
- (d) the Netherlands, dual pathway.

Companies also need to be accredited and to fulfil several requirements to take on apprentices, including, in the case of Hungary, dual vocational training with apprenticeship training contract, to provide practical training as per a VET framework curriculum. Sanctions are also applied in two of the four schemes. Similar to group A schemes, the labour market side (economic actors and/or social partners together with the training companies) has responsibility for the delivery and quality of delivery of the in-company training part of the apprenticeship programmes (the Netherlands, dual pathway) or apprenticeship pathways (Hungary, dual vocational training with apprenticeship training contract; and Luxembourg, apprenticeship contract).

Exceptions to this group are the Romanian scheme, apprenticeship at the workplace, and the French, professionalising contract scheme. In the former, enforcement of the obligations of the employer is under the control of the employment regional (county) agencies through labour inspectors. In the latter case, the OPCA (*organisme paritaire collecteur agréé*), a joint body collecting compulsory training taxes for the continuous training from the companies,

is responsible for checking conformity of the professionalising contract with the norms. Both schemes fall under CVET and neither foresees compulsory training in an education and training institution. No accreditation is foreseen, even though the company needs to comply with several requirements to be able to take on apprentices. Sanctions are foreseen in the Romanian scheme (return of money to the State budget if the apprentice fails to get the certificate twice); in the French professionalising contract no sanctions are foreseen. These two schemes have a more marked employment focus than the rest of the group B schemes. While companies have the overall responsibility for implementing the apprenticeship pathway, it is the financing bodies (not economic or social partners or education and training institutions, as in the above cases) that play a supervisory role. Unlike the economic or social partners or education and training institutions with roles in monitoring the implementation and quality of in-company training, the financing bodies have responsibility for the economic aspect of the apprenticeship implementation.

In the bulk of the schemes, it is the education and training institution that assesses suitability of companies to train through accreditation and/or monitoring, even in those cases where school attendance is not compulsory. In all cases where the education and training institutions play this role, and particularly for the schemes at upper secondary level, the responsibility for apprenticeship education ⁽³¹⁾ lies with the world of education, even though generally more than half of this type of education is provided at a workplace. Accreditation and sanctions are generally not foreseen. Several requirements may be specified by the regulations, the most common being the presence of a mentor or trainer.

4.3.3. Function group C schemes (apprenticeship as a hybrid system)

Overview of function C schemes (Table 13) shows that labour market representatives such as chambers or institutions involving labour market representatives are not involved at operational level in any of the three schemes. Similar to the bulk of the function B schemes, responsibility falls on education and training institutions.

No sanctions are foreseen and accreditation is foreseen in only one of the three schemes. The requirements mostly anticipate the presence of a tutor.

⁽³¹⁾ Including final assessment.

Table 13. Responsibility for in-company learning: group C schemes

Scheme	Accreditation of company before recruiting	Requirements on employers as per regulation	Who assesses suitability of companies to train (accreditation and/or monitoring)?	Are there any sanctions (*)?
BE-fr, dual training/ dual contract (vocational training subsystem)	Y	Tutor	Training institution	N
CY, new modern apprenticeship	N	Tutor, facilities	Inspectors appointed by Ministry of Labour	N
EL, EPAS apprenticeships	N	Provide required staff and appropriate facilities. No training plan for companies	EPAS schools	N

(*) Related to the non-provision of training.

Source: Cedefop.

4.4. Relationship between training company and learner

Analysis so far has indicated that countries use the contractual relationship between the learner and a training company in distinguishing apprenticeships from other forms of VET delivery in function group B schemes, to the extent that most of the schemes in this group are defined as paid employment or contract (Section 3.2). Where group B apprenticeship schemes are not defined as paid employment or contract, the following applies:

- (a) Estonia makes compulsory use of two contract types: either an apprenticeship training contract signed between the learner, the school and the company, or a work contract signed between the school and the company;
- (b) the Netherlands makes compulsory use of a contract between the learner and the training company for the purpose of the apprenticeship programme;

- (c) Portugal foresees compulsory use of a formal contract (called a learning contract - *contrato de aprendizagem*) for the apprenticeship programme;
- (d) Sweden foresees the possibility of use of an employment contract for the purpose of apprenticeship training (optional use of an employment contract to formalise the relationship between the learner and the training company).

All A and C schemes formalise the relationship between the training company and the learner through use of a type of contract.

With the exception of the Swedish schemes, all schemes under analysis foresee compulsory use of a contractual relationship between the learner and the training company. Learners also receive remuneration from the training company.

Only one type of contract is associated with or may be used for each scheme, apart from five schemes where several types may be used: Belgium-fl, both schemes; Belgium-fr, dual training/dual contract (both sub-schemes); Estonia, workplace-based learning; France, professionalising contract. In most cases, the specified contract is covered by the labour code (but not necessarily an employment contract) or is a specific form of employment contract. The schemes in Italy and France make compulsory use of an ordinary employment contract, while the schemes in Estonia and Sweden allow the use of ordinary work contracts for companies to hire apprentices.

In schemes where school attendance is not compulsory, the contract is mostly a form of employment contract. Where the alternance is compulsory, most often, it is a specific contract (not considered equivalent to an employment contract but covered by the labour code) that is used. Annex 4 provides an overview of the types of contract associated with the apprenticeship schemes under analysis.

4.5. Concluding remarks: organisational features

One organisational feature common across the schemes under analysis is a contract between the apprentice and the training company, accompanied by remuneration paid by the company. What changes across the schemes is the weight given to the contract: while A, B1 and C schemes use the contract as a tool to support the organisation of the apprenticeship programmes, B2 and B3 schemes mostly use the contract to define apprenticeships, signalling a shift in paradigm: from programme to pathway and individual

learning experiences; from education and training to employment; from sector to company; and from peers to individuals.

Alternance between two learning venues also applies as a generally common organisational feature which most schemes foresee as compulsory. However, many schemes allow the learner to spend the whole of his/her apprenticeship pathway time in the company, if the company has the capacity to deliver the theoretical part of the qualification.

The picture is more mixed when it comes to features such as duration of the apprenticeship training and volume of time spent in company. Length of overall apprenticeship training duration and volume of in-company training, while comparable and guaranteed for all learners studying for the same qualification under A, B1 and C apprenticeship schemes, vary, sometimes extensively, in B2 and, particularly, B3 schemes. The result is that individual apprenticeship pathways, even when leading to the same nationally recognised qualifications, encompass different experiences both in terms of duration of the apprenticeship training and volume of in-company training. In these cases, it is not a comparable mode of learning which is guaranteed for peers studying for the same qualification but a learning experience. This triggers potential disparity of opportunities among learners and companies. It also raises questions in relation to what apprenticeships are (in absolute terms, as well as within the overall education and training systems), what they stand for (in content, organisation, and quality) and, finally, their value on the labour market (the national or sectoral value of apprenticeships being indispensable in generating the interest of national and/or sectoral level economic and social partners).

The picture of responsibility-sharing between education and training and labour market indicates a demarcation between approaches where sector representatives and companies have responsibility for implementing in-company training, including for final assessment (most common among group A apprenticeship schemes) and approaches where the schools are held responsible also for in-company training, including for final assessment (most common among group B apprenticeship schemes).

Future EU apprenticeship challenges

The findings of this study confirm that there is no single apprenticeship. The diversified picture of apprenticeship schemes in the EU-28 (plus Iceland and Norway) distinguishes:

- (a) well-established or well-defined systems where apprenticeships have a clear place and role within the overall national education and training systems (also leading to apprenticeship qualifications);
- (b) systems where apprenticeships do not yet have a shared understanding among stakeholders and a clear place and role in overall VET provision (achievement of a qualification in apprenticeships is rarely acknowledged or formally indicated).

While there is no single apprenticeship, there are several common policy and implementation challenges that countries face in introducing or reforming apprenticeship laws, policies and practices. The following may reflect any of the schemes covered by the study but mostly refer to those in function-group B, the largest in size:

- (a) weak or unclear distinction between apprenticeship and other forms of work-based-learning and variations in the way the same apprenticeship scheme is shaped at implementation level, resulting in a high degree of fragmentation of the same apprenticeship scheme and challenging the possibility to streamline and assure quality;
- (b) in the absence of apprenticeship-specific programmes, wide variations in the duration of individual apprenticeship learning experiences and of the related in-company training among learners studying for the same qualification (triggering potential disparity of opportunities among learners and companies and lack of transparency as apprenticeship learning experiences among peers may lack comparability);
- (c) limited (often to the employment-related aspects of the apprenticeship contract) or no involvement of socio-economic partners at all levels (strategy and programming, design of content, implementation, evaluation); education-driven apprenticeships and partnerships established between

school and training company resulting in overburdening of education and training institutions that often assume the entire responsibility (but not entire control as they often use company-tailored learning outcomes as an incentive to convince companies to take apprentices);

- (d) limited sector-driven approaches to apprenticeship strategy, content design and provision, which are more commonly defined at level of individual company;
- (e) limited (quantity) or narrow (quality) company engagement which often does not go beyond fulfilment of companies' manpower needs;
- (f) lack of evaluation of apprenticeship policies and of *ex-ante* and *ex-post* cost-benefit analyses.

Against this background, continuous initiatives and significant policy effort at EU level may play a crucial role in supporting the diffusion and implementation of effective apprenticeship schemes in so far as future developments will be conducive to the following objectives:

- (a) pursue parallel convergence of apprenticeships across the EU on the basis of commonly agreed principles and quality standards, rather than importing models often unsuitable to specific national contexts;
- (b) conceive apprenticeship as a quality education and training opportunity, offered to people irrespective of age, which combines learning at school and learning through work and leads to nationally recognised qualifications at different EQF levels, providing the apprentice with full competence and capability in an occupation or profession. If achieved in apprenticeships, a qualification should formally acknowledge it. This perspective will entail specific attention to the following aspects:
 - (i) make clear the distinction between apprenticeships and other forms of work-based learning both in form and function;
 - (ii) avoid misuse of apprenticeship provision for underpaid, over-flexible employment and association of apprenticeships with active labour market measures;
 - (iii) minimum duration of apprenticeship training, including periods at an education and training provider and periods of in-company training, is sufficiently long to allow for the proportion of time to be spent in the company to be of reasonable length for the company to recoup its investment. The minimum duration of the training should be calculated on the basis of the relative qualification and should be guaranteed to all peer apprentices studying for the qualification. The minimum

- duration should also allow for (long-term) cross-country mobility of apprentices;
- (c) make use of incentives to encourage participation of priority groups of people and attract a wide range of companies while following a targeted approach to maximise their potential impact;
 - (d) reward well-performing training companies and support them through the introduction of elements of performance pay, related to results in training, innovativeness, creativity;
 - (e) engage socioeconomic partners at all levels, in equal partnerships with education and training authorities and, within the national frameworks, allow for sector-led approaches in the design and implementation of apprenticeships, including the design of learning outcomes for the in-company part of the apprenticeship training. Qualifying aspects necessary to ensure effective apprenticeships depend on well-designed governance and inclusive partnerships:
 - (i) while learning outcomes of the in-company training component often tend to be firm-specific, a dynamic labour market needs competent people, not simply skilled people. Apprenticeship learning outcomes, a significant proportion of which are to be achieved in the company, should be focused on resilient competences, rather than half-life knowledge and short-life skills;
 - (ii) engagement of the socioeconomic partners eases the burden and responsibility on the education and training providers' side and supports companies in taking decisions to take on apprentices based not exclusively on a monetary perspective but also reflecting their motivation to invest in securing a skilled workforce;
 - (f) make apprenticeship systems and schemes adaptable to medium and long-term structural changes in the economy and society.

In the medium- to long-term perspective, the workplace as the place offered by the employer is increasingly being replaced by the concept of the workplace as the place where the individual worker actually works. Since this shift has emerged (relatively) recently, and will rapidly affect a growing share of the workforce, this means a growing need to tailor work-based learning and apprenticeship policies to sectors and, within sectors, to occupations, with attention to the development of smart-working arrangements. Apprenticeships, may become a less suitable tool for all occupations, sectors, types of companies. In a time of scarce resources and need for more

quality training, a short-/medium-term solution in countries still developing apprenticeships could be concentrating investment on apprenticeships in particular sectors, for selected occupations, and/or specific geographic areas with favourable conditions for building quality apprenticeships. A guiding principle of focused diffusion of apprenticeships should be observed whereby they are not offered across the board but in selected business sectors or occupations. At the same time, apprenticeship curricula should embrace a wide competence spectrum and be designed in a capability-approach perspective, for apprentices to be qualified and employable beyond the company boundaries, in the occupational labour markets.

List of abbreviations

BE-fr Belgium-fr	French Community of Belgium
BE-fl Belgium-fl	Flemish Community of Belgium
BBL	apprenticeship programmes
BOL	school-based programmes
CCP	<i>certificat de capacité professionnelle</i>
CEEP	European Centre of Employers and Enterprises
CFA	<i>centre de formation d'apprentis</i>
CVET	continuing vocational education and training
DAP	<i>diplôme d'aptitude professionnelle</i>
DT	<i>diplôme de technicien</i>
EafA	European alliance for apprenticeships
EPAL	vocational education school (Greece)
EPAS	vocational training (apprenticeship) school (upper secondary) (Greece)
EQF	European qualifications framework
EU	European Union
EU+	EU Member States plus Iceland and Norway
IEK	vocational training institute (post-secondary)
ISCED	international standard classification of education
IVET	initial vocational education and training
OPCA	<i>organisme paritaire collecteur agréé</i>
PES	public employment service
SASE	specification of apprenticeship standards for England
SBB	cooperation organisation for vocational education, training and the labour market
SMEs	small and medium size enterprises
SOLAS	<i>An tSeirbhís Oideachais Leanúnaigh agus Scileanna</i>
SYNTRA	Education and training providers of SMEs
UEAPME	European association of craft, small and medium-sized enterprises
VET	vocational education and training

Country codes

BE	Belgium
BG	Bulgaria
CZ	Czech Republic
DK	Denmark
DE	Germany
EE	Estonia
IE	Ireland
EL	Greece
ES	Spain
FR	France
HR	Croatia
IT	Italy
CY	Cyprus
LV	Latvia
LT	Lithuania
LU	Luxembourg

HU	Hungary
MT	Malta
NL	Netherlands
AT	Austria
PL	Poland
PT	Portugal
RO	Romania
SI	Slovenia
SK	Slovakia
FI	Finland
SE	Sweden
UK	United Kingdom
IS	Iceland
NO	Norway

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ANNEX 1.

List of apprenticeship schemes covered by the comparative analysis

(Chapters 3 and 4 of the study)

Country	Scheme (in English)
AT	Dual apprenticeship
BE-fr	Dual training/dual contract (education subsystem)
	Dual training/dual contract (vocational training subsystem)
BE-fl	Part-time vocational secondary education with part-time or apprenticeship contract
	Apprenticeships for SMEs with part-time or apprenticeship contract
CY	New modern apprenticeship
DE	Dual VET
DK	Apprenticeship
EE	Workplace-based learning
EL	EPAS apprenticeships
ES	Dual VET with apprenticeship contract
FI	Apprenticeship training
FR	Apprenticeship contract
FR	Professionalising contract
HR	Unified model of education
HU	Dual vocational training with apprenticeship training contract
IE	Apprenticeship
IS	Apprenticeship
IT	Apprenticeship in upper secondary education (type 1)
	Apprenticeship for higher education (type 3)
LU	Apprenticeship contract
NL	Dual pathway
NO	Upper secondary vocational programmes
PL	Vocational preparation of young persons: occupational training (craft sector)
PT	Apprenticeship programmes
RO	Apprenticeship at the workplace education
SE	Apprenticeships in upper secondary
UK-England	Apprenticeships (SASE frameworks ⁽²⁸⁾)
UK-Scotland	Modern apprenticeships (frameworks)

⁽³²⁾ In UK-England, two sub-schemes are running in parallel: the specification of apprenticeship standards for England (SASE) frameworks, and the Trailblazers. The latter will replace the former by 2020. Since 2014 no SASE frameworks have been developed and new apprenticeship standards have been developed by employer groups known as 'Trailblazers'.

ANNEX 2.

Group B apprenticeship schemes: education levels and eligibility age

	Education level (formal certificates or qualifications)	Second chance	Eligibility age
BE-fr, dual training/ dual contract (education sub-system)	Upper secondary	X	15-25
BE-fl, part-time vocational secondary education with part-time or apprenticeship contract	Upper secondary	X	15-25
BE-fl, apprenticeships for SMEs with part-time or apprenticeship contract	Upper secondary	X	15-25
EE, workplace-based learning	Lower, upper and post-secondary	X	15+
ES, dual VET with apprenticeship contract	Lower, upper and higher levels ^(a)	N/A	16-25 ^(b)
FI, apprenticeship training	Upper and post-secondary	X	15+
FR, apprenticeship contract	Upper secondary and higher programmes ^(c)		15-25

	Education level (formal certificates or qualifications)	Second chance	Eligibility age
FR, professionalising contract	CVET all qualification levels	X	16-25 who want to complete their initial training 26+ unemployed registered at PES beneficiaries of specific state aids
HU, dual vocational training with apprenticeship training contract	Upper secondary and adult education (for the second qualification)		15+
IT, type 1 apprenticeship in upper secondary education ^(d)	Upper and post-secondary		15-25
IT, type 3 apprenticeship for higher education ^(e)	Higher programmes		18-29
LU, apprenticeship contract	Lower and upper secondary	X ^(f)	Initial apprenticeship (for CCP, DAP and DT): 15 years Adult apprenticeship: 18+ (having left school more than one year earlier. Both adults under a work contract and job seekers)
NL, dual pathway (BBL)	Lower and upper secondary	X	15-24
PT, apprenticeship programmes	Upper secondary	X	15-24 (young people who do not have upper secondary education)
RO, apprenticeship at the workplace	CVET (qualifications at levels 2, 3 and 4 on the national/ European qualifications frameworks)	X	16-25 (adults outside of the formal education and training system, unemployed, no qualification for which they train)
SE, apprenticeships in upper secondary	Upper secondary, adult education	Alternative pathway in formal VET (not the main route)	

	Education level (formal certificates or qualifications)	Second chance	Eligibility age
UK-England, apprenticeships (SASE frameworks)	Upper and post-secondary intermediate, higher, advanced, graduate	Alternative pathway in formal VET (not the main route)	16+ Generally schemes are targeted to 16-24 (funding reflects this) however, apprenticeships are available for older age groups and the unemployed
UK-Scotland, modern apprenticeships (frameworks)	Upper secondary	Alternative pathway in formal VET (not the main route)	16+ Funding has been prioritised, however, for 16-17 year olds under a UK-wide government training guarantee, and the funding available to those 25 and over is currently limited

(^a) It may also lead to non-formal certificates (not linked to national qualifications framework).

(^b) This limit has been increased to 30 years-old until the unemployment rate is under 15% in the country. Also, the age limit is not applicable in the case of persons with disability or from disadvantaged groups, and in the case of learners participating in certain training programmes organised by the public employment services under active labour market policies.

(^c) Short cycle professionally oriented programmes, longer academic-oriented programmes.

(^d) Type 1 apprenticeship is an umbrella scheme that covers both upper secondary and post-secondary education levels.

(^e) Type 3 apprenticeship is an umbrella scheme that covers the tertiary level (academic and non-academic), related to formal qualifications and apprenticeship for research, not related to the formal education and training system.

(^f) Training towards a CCP (EQF 2; CCP is for students with learning difficulties) is always done under an apprenticeship contract; towards DAP (EQF 3) can be done under an apprenticeship contract or an internship contract; training towards DT (EQF 4) is mostly organised under internship contracts.

Source: Cedefop.

ANNEX 3.

Responsibility for learning in the company: group B schemes

Scheme	Accreditation of company before recruiting	Requirements on employers as per regulation
Compulsory alternation between learning venues		
BE-fr, dual training/ dual contract (education subsystem)	Y	Tutor
BE-fl, part-time vocational secondary education with part-time or apprenticeship contract	Y	Tutor
BE-fl, apprenticeships for SMEs with part-time or apprenticeship contract	Y	N/A
FI, apprenticeship training	N/A	Tutor, learning support, learning environment, training plan
HU, dual vocational training with apprenticeship training contract	Y	Trainer, learning environment, equipment provision of practical training as per VET framework curriculum
IT, type 1 apprenticeship in upper secondary education	N	N/A

Who assesses suitability of companies to train (accreditation and/or monitoring)?	Are there any sanctions ^(a) ?
Education and training provider	N
Joint apprenticeship committees of the respective sector	N
SYNTRA (education and training providers of SMEs)	N
Education and training provider	Y ^(b)
Chambers	Y/N (close monitoring)
Education and training provider	Y, fines

Scheme	Accreditation of company before recruiting	Requirements on employers as per regulation
IT, type 3 apprenticeship for higher education		Tutor, equipment, learning environment, training plan
LU, apprenticeship contract	Yes (°)	Tutor, learning support, facilities
NL, dual pathway	Yes	<p>The company needs to provide: a good and safe workplace which corresponds to the occupation the apprentice is trained in, with the working processes and tasks that belong to this occupation; employs a supervisor (<i>praktijkopleider</i>) who knows the requirements of the education and training programme and who is qualified to train and coach the apprentice at the workplace. The company provides the work time, space and means for the supervisor to carry out his/her tasks.</p> <p>The supervisor is willing to work together with the education and training provider and the SBB.</p>
PT, apprenticeship courses	N	N
SE, apprenticeships in upper secondary	N	Tutor, training plan, facilities, equipment
Schemes where school attendance is not compulsory		
EE, workplace-based learning	Assessment is conducted by VET school with company	Supervisor, learning conditions, training plan, assessment of practical training done by apprentice
ES, dual VET with apprenticeship contract	According to the Labour Code, the company can provide training if it has adequate facilities and staff	Tutor and training support, facilities
FR, apprenticeship contract	not clear	Learning environment, learning support

Who assesses suitability of companies to train (accreditation and/or monitoring)?	Are there any sanctions ^(a) ?
Education and training provider	Y, fines
The right to train apprentices is given to a company by the relevant employers' professional chamber with the relevant employees' chamber (<i>chambre salariale</i>) ^(d)	Y
SBB (Foundation for Cooperation between Vocational Education and Training and the Labour Market)	N
N/A	N
Schools ^(e) – Swedish School inspectorate supervises and assesses the quality of vocational education programmes. Inspection increasingly also covers learning at the workplace	N
VET school	N
N/A	N
CFA (<i>centre de formation d'apprentis</i>) ^(f)	Y

Scheme	Accreditation of company before recruiting	Requirements on employers as per regulation
FR, professionalising contract	N	Tutor, training plan, learning support, learning environment
RO, apprenticeship at the workplace	N	Apprentices coordinator, access to theoretical and practical training
UK-England, apprenticeships (SASE frameworks)	N	Tutor, learning environment, learning support, develop a training plan
UK-Scotland, modern apprenticeships (frameworks)	N	N (training providers are under contract to the enterprise networks to agree provision of appropriate training throughout the apprenticeship, to assess competences, to develop individual learning plans with the employee and employer, and to administer the modern apprenticeship through contact with the local enterprise company and by keeping the central modern apprenticeship management database updated)

(a) Related to the non-provision of training.

(b) Education provider has a right to dissolve the contract.

(c) Tutors are approved by the relevant employers' professional chamber bodies.

(d) For trades/occupations that do not depend on an employers' professional chamber, the right to train and tutor approval are granted by the minister in consultation with the relevant employees' chamber.

(e) Responsibility for VET in upper secondary school lies within the world of education. The same is true for apprenticeship education, even though more than half the education is provided at a workplace. Schools are responsible for the implementation of apprenticeship education, such as finding workplaces, recruiting pupils and follow-up on goal attainment.

(f) Apprentice training centres are publicly funded institutions in charge of professional dual training.

(g) A OPCA (*organisme paritaire collecteur agréé*) is in charge of collecting the training levies. It is also the main institution of reference for the employees who want to undergo training.

(h) If the apprentice fails twice to get the training certificate, the training company must return all money received for the respective apprentice from the employment agency, plus the interest.

(i) Early termination of the contract may result in enhanced compensation.

Source: Cedefop.

Who assesses suitability of companies to train (accreditation and/or monitoring)?	Are there any sanctions ^(a) ?
OPCA ^(g) verifies monitor contract compliance and bears the costs of the contract and of training	N
Enforcement of the obligations of the employer is under the control of the employment regional (county) agencies through labour inspectors	Y ^(h)
It is the education and training provider's responsibility to ensure that quality standards are met. This includes challenging or not engaging with employers who are unwilling or unable to contribute to a high quality apprenticeship	N
<p>In cases where modern apprenticeship training is entirely work-based, the training provider usually has an assessor-only role and visits the apprentice at the place of work to assess competence.</p> <p>Training companies are responsible for work-based training and therefore have an important role in ensuring apprentices successfully complete apprenticeships. Monitoring the quality of work-based training is more complicated than classroom-based training due to the large number of employers involved – over 10 000 in 2012/13. Most of these employed just one apprentice</p>	N ⁽ⁱ⁾

ANNEX 4.

Presence of a contract between the learner and the company across the apprenticeship schemes

Alternance	Scheme	Contract between learner and company	
		Yes	No
Group A			
Compulsory alternance	AT, dual apprenticeship	X (specific contract covered by labour code)	
	DE, dual VET	X (specific contract covered by labour code)	
	DK, apprenticeship	X (a form of employment contract)	
	HR, unified model of education (educational programme for trades and crafts)	X (formal agreement not covered by the labour code)	
	IE, apprenticeship	X (a form of employment contract)	
	IS, apprenticeship	X (a form of employment contract)	
	NO, upper secondary vocational programmes	X (specific contract ^(a))	
School attendance is not compulsory	PL, vocational preparation of young persons, occupational training (craft sector)	X (a specific form of employment contract)	

Alternance	Scheme	Contract between learner and company	
		Yes	No
Group B			
Compulsory alternance	BE-fr, dual training/dual contract (education subsystem)	X (a form of employment contract)	
	BE-fl, part-time vocational secondary education with part-time or apprenticeship contract	X (several types of contracts: paid, unpaid, part-time employment contract, apprenticeship contract)	
	BE-fl, apprenticeships for SMEs with part-time or apprenticeship contract	X (N/A)	
	FI, apprenticeship training	X (specific contract covered by labour code)	
	HU, dual vocational training with apprenticeship training contract	X (formal agreement not covered by the labour code)	
	IT, type 1 apprenticeship in upper secondary education	X (an open ended employment contract)	
	IT, type 3 apprenticeship for higher education	X (an open ended employment contract)	
	LU, apprenticeship contract	X (specific contract covered by labour code)	
	NL, dual pathway	X (specific contract covered by labour code)	
	PT, apprenticeship programmes	X (formal agreement not covered by the labour code)	
SE, apprenticeships in upper secondary	X (a specific form of employment contract) ⁽⁶⁾	X	

Alternance	Scheme	Contract between learner and company	
		Yes	No
School attendance is not compulsory	EE, workplace-based learning	X (employment contract or apprenticeship contract)	
	ES, dual VET with apprenticeship contract	X (specific contract (formative contract) covered by labour code)	
	FR, apprenticeship contract	X (specific contract covered by labour code)	
	FR, professionalising contract	X (fixed term labour contract or permanent contract with period of professionalisation action)	
	RO, apprenticeship at the workplace	X (specific form of temporary employment contract)	
	UK-England, apprenticeships (SASE frameworks)	X (a form of employment contract, not legally binding) ^(c)	
	UK-Scotland, modern apprenticeships (frameworks)	X (a form of employment contract)	
Group C			
Compulsory alternance	BE-fr, dual training/dual contract (vocational training subsystem)	X (could be a form of employment contract)	
	CY, new modern apprenticeship	X (a form of employment contract)	
	EL, EPAS apprenticeships	X (specific contract covered by labour code)	

^(a) Contractualisation rests on the Education and Working Environment Acts. Collective agreements may also regulate the rights and obligations.

^(b) Upper secondary apprentices can be offered employment while still in education in accordance with adapted labour law provisions.

^(c) Apprenticeship agreement – contract of service.

Source: Cedefop.



This report details Cedefop's first cross-nation study of apprenticeships in the European Union. The point of departure for the study is what countries define and offer as apprenticeship training. It then applies a purposive approach to identifying the changes that apprenticeships are undergoing in practice, based on their design characteristics.

Largely based on data collected in 2016, the study includes mapping of apprenticeship schemes with a stable/valid legal basis at system level, or mainstream schemes, in the EU Member States, Iceland and Norway; it identifies and analyses the different purposes and functions associated with the schemes, and investigates whether and how they differ in terms of organisation.

This report indicates the fundamental differences among apprenticeships in Europe that account for the absence of a shared understanding of the concept of apprenticeship. The design of apprenticeship schemes seems to respond to two different and evolving purposes and functions of apprenticeship, the analysis of which may bring new insights into EU- and national-level policy debates.


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