



Report on the VETNET & ESREA research meeting  
during the fourth EU Vocational Skills Week in Helsinki, 16.10.2019

**VET for ALL – Skills for Life**

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## **Introduction**

## **VETNET mission**

The Vocational Education and Training Network VETNET is an open network, which welcomes contributions from all over the world as long as they are in line with the goals of VETNET.

VETNET is focusing on research and development in the field of initial, higher and continuing vocational education and training (VET) and learning across the lifespan.

The goals of VETNET are to promote research on vocational education and training and to contribute its development by:

- fostering a high quality of research in the field of vocational education and training;
- exploring the relationship between research, policy and practice;
- stimulating the multidisciplinary discussion and dissemination of research results in the European research area and beyond through mutual learning;
- encouraging, establishing and maintaining cooperation between VET researchers and project partnerships in the European research area through, e.g., organizing the VETNET programme at the ECER, Crossing Boundaries or Stockholm International Conference; developing international contacts; cooperating with other relevant conferences; publications or by producing electronic or other newsletters;
- maintaining the peer reviewed VETNET journal IJRNET, the VETNET ECER proceedings and contributing to other international publications; maintaining the community website [vetnetsite.org](http://vetnetsite.org).

## **VETNET**

- maintains a community website on [vetnetsite.org](http://vetnetsite.org);
- has an entry on the EERA website: <https://eera-ecer.de/networks/2-vocational-education-and-training-vetnet/>;
- has a project on [researchgate.net](https://www.researchgate.net/project/IRNVET-VETNET-International-Research-Network-in-Vocational-Education-and-Training-VETNET-European-Research-Network-in-Vocational-Education-and-Training): <https://www.researchgate.net/project/IRNVET-VETNET-International-Research-Network-in-Vocational-Education-and-Training-VETNET-European-Research-Network-in-Vocational-Education-and-Training>;
- has a community on <https://zenodo.org/communities/vetnet/> to host for example the conference proceedings.



## **ESREA mission**

ESREA's mission is to support the advancement of high-quality research on the education and learning of adults in Europe by sustaining:

- co-operation among researchers, in the European context conceived in the broadest geographical terms;
- development of research and dissemination of results in all areas of adult and continuing education;
- training of early researchers and continuing professional development of researchers;
- relationships with other European organizations and the appropriate national organizations.

ESREA ([www.esrea.org](http://www.esrea.org)) promotes and disseminates theoretical and empirical research on the education of adults and adult learning in Europe through its 12 thematic research networks, conferences and publications.

## **Programme of the workshop**

Meeting of VET researchers, Wednesday 16 October 2019 – 09:00 – 12:30

### **Timetable**

09:00 - 09:20 Presentation of the networks VETNET & ESREA

Christof Nägele & Barbara E. Stalder VETNET

Marcella Milana ESREA

**09:20 – 10:30 Apprenticeship: theory and practice — and its relation to the European framework of quality and effective apprenticeship**

Moderator: Barbara E. Stalder

10' Michael Gessler, Apprenticeships: conceptions, misconceptions and maturity levels

10' Mónica Moso, The apprenticeship (or dual) triangle: vocational learning, quality assurance and challenging innovation

50' discussion

10:30 – 10:50 Break

**10:50 – 12:00 A system perspective on social inclusion and the education, training and learning of adults**

Moderator: Marcella Milana

10' Sofie Cabus: Participation in Adult E&T in the European Union: New Perspectives on System-Level Determinants

10' Ellen Boeren: Navigating the structures of adult learning in Europe

50' discussion

12:00 - 12:30 Plenum, final comments, outlook

Moderator: Christof Nägele

## List of Participants

Name	NW
Aarkrog, Vibe Aarhus University <a href="mailto:viaa@edu.au.dk">viaa@edu.au.dk</a> Danmark	V Dr Vibe Aarkrog is an associate professor within VET pedagogy at the Department for Education, Aarhus University. Her research concerns vocational pedagogics and didactics with a focus on the interrelation of school-based and workplace-based parts of education and training, practice-based training and learning and technologically- based training and learning.
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Avis, Robert James University of Huddersfield <a href="mailto:j.avis@hud.ac.uk">j.avis@hud.ac.uk</a> United Kingdom	V James Avis is an Emeritus Professor of the University of Huddersfield. His research interests lie in post-compulsory/post-secondary education and life-long learning. He has written extensively on the policy contextualisation of further education, having addressed curriculum issues, methodological questions, teacher professionalism, as well as the lived experience of teachers and learners. He has a keen interest in the political economy of this sector, its policy contextualisation and social justice.
Benke, Magdolna University of Debrecen <a href="mailto:magdolna.benke@gmail.com">magdolna.benke@gmail.com</a> Hungary	V Dr. Magdolna Benke is a researcher of CHERD at the University of Debrecen, Hungary. Her research interests include the governance of VET focusing on the role of social partners and searching the possibilities of participatory planning on local level; the role of VET in creating learning regions and learning communities, workplace learning, adult learning.
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Bonoli, Lorenzo SFIVET <a href="mailto:lorenzo.bonoli@iffp.swiss">lorenzo.bonoli@iffp.swiss</a> Switzerland	V Dr Lorenzo Bonoli is a senior researcher and senior lecturer at the Swiss Federal Institute for Vocational Education and Training in Lausanne. His research interests include systemic issues and historical evolution of the Swiss VET system, international issues of VET, comparison of international VET systems, epistemology of social sciences, discourse analysis.

Name	NW	
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Kersh, Natasha University College London <a href="mailto:n.kersh@ucl.ac.uk">n.kersh@ucl.ac.uk</a> United Kingdom	V	Dr Natasha Kersh is a Lecturer in Education, at the Department of Education, Practice and Society, UCL Institute of Education, University College London. Her research interests and publications relate to the study of VET and adult education in the UK and international contexts as well as comparative education and lifelong learning.
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Moso Diez, Mónica Bancia <a href="mailto:mmoso@fundacionbankia.com">mmoso@fundacionbankia.com</a> Spain	V	Deadline: 5 November 2019 Dr Mónica Moso-Diez is the Head of the Research and Innovation Centre at the Bankia Foundation for Dual Training, Spain. She has been visiting scholar and fellow in the universities of Basque Country (SP), California-Berkeley (USA), Sussex (UK), Manchester (UK) and Wollongong (AU). Her research interests include VET public policy making, public policies for research, development and innovation policies, and VET and business innovation strategies at regional, national and European level. <a href="https://www.dualizabankia.com">https://www.dualizabankia.com</a>
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Nardi Paolo COMETA <a href="mailto:Paolo.Nardi@puntocometa.org">Paolo.Nardi@puntocometa.org</a> Italy	V	Dr Paolo Nardi is Coordinator at the UNESCO-UNEVOC Cometa Research Centre in Como, Italy. His research interests shifted from human geography (namely: non profit, social innovation and community development) to education and training, namely innovations in pedagogy and life skills.
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<p>Saniter, Andreas Universität Bremen, Institute Technology and Education <a href="mailto:asaniter@uni-bremen.de">asaniter@uni-bremen.de</a> Germany</p>	V	<p>Dr Andreas Saniter has a Diploma in Physics, PhD in didactics of physics. His research and education interests focus on technical education; evaluation and conceptual structuring of vocational training programs; coordination of national and transnational projects. At ITB since 2004. Head of various European projects, like AEROVET (2009-2012), DEVAPPRENT (2010-2012) or ICSAS (2017-2020).</p>
<p>Stalder, Barbara E. University of Teacher Education Bern <a href="mailto:barbara.stalder@phbern.ch">barbara.stalder@phbern.ch</a> Switzerland</p>	V	<p>Dr Barbara E. Stalder is a Professor at the Institute of Upper Secondary Education at Bern University of Teacher Education, Switzerland. She is head of the area Educational and Social Studies and director of the research priority programme Career Success in School and at the Workplace. Her research focuses on student engagement and learning in VET, learning transfer between school and work, and career development and career success over the life span. She has been engaged in VETNET since 1999 and is currently co-chair of VETNET.</p>

## **Impetus Presentations**

Gessler, M. (2019). Apprenticeships: Conceptions, misconceptions and maturity levels. In C. Nägele, M. Gessler, B. E. Stalder, & M. Milana (Eds.), *VET for all – skills for life. Report on the VETNET & ESREA research workshop during the fourth European Vocational Skills Week in Helsinki, 16.10.2019* (pp. xx–xx). <https://doi.org/10.5281/zenodo.3489723>

## **Apprenticeships: Conceptions, Misconceptions and Maturity Levels<sup>1</sup>**

Michael Gessler

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### **Company-based apprenticeships and characteristics of work**

#### ***Logics: employment and education***

Angelo Varetto, Head of Standards, Qualifications and Apprenticeships at Skills for Health (UK), defines apprenticeships as follows: ‘An apprenticeship is a job that includes training’ (Varetto 2017, 26). On the one hand, this definition seems to be self-evident in an age where lifelong learning and training are basic demands for every job or occupation (Volles 2016). On the other hand, many countries (e.g. the United States and the United Kingdom) face a major challenge under this definition, since employers are often unwilling to train their employees (Cappelli 2015; Green et al. 2016). If employers offer an apprenticeship, the tasks of ‘training and learning’ become part of the job description, even if there are still many ways in which to enable learning on-the-job and to offer training on-, near-, and off-the-job.

The slogan ‘Apprenticeship is a job’ is grounded in an employment logic. Beyond this employment logic, Iannelli and Raffe (2007) describe a second logic or second reference: the education logic. These two logics were used to distinguish between company-based<sup>2</sup> and school-based apprenticeships (European Commission 2012). The basic differences between these apprenticeship schemes (or ideal types) are summarised in Table 1.



<sup>1</sup> Shortened version of Gessler, M. (2019). Concepts of Apprenticeship: Strengths, Weaknesses and Pitfalls. In: McGrath S., Mulder M., Papier J., Stuart R. (eds), *Handbook of Vocational Education and Training* (pp. 677-709). Springer, Cham.

<sup>2</sup> In the European Commission’s report, the term ‘work-based apprenticeship’ is used. Work-based learning is also possible in schools. The difference between the two schemes has blurred; therefore, we prefer the term ‘company-based apprenticeships’.

Table 1: Basic differences between company-based and school-based apprenticeship schemes (European Commission 2012, 120)

Mainly company-based	Mainly school-based
<ul style="list-style-type: none"> <li>• Training in enterprises <math>\geq 60\%</math></li> <li>• Companies offer places</li> <li>• Students actively search for places</li> <li>• Work contract: Enterprise–Apprentice</li> <li>• Apprentice = Employee</li> <li>• High share of financing by enterprises</li> <li>• Apprentice receives remuneration</li> <li>• Companies define training plan</li> </ul>	<ul style="list-style-type: none"> <li>• Training at School <math>\geq 60\%</math></li> <li>• Training centres and students search for companies</li> <li>• Training agreement: School-Enterprise</li> <li>• Apprentice = Student</li> <li>• Public sector is the main source of funding</li> <li>• Apprentice may receive compensation</li> <li>• Schools establish training plan</li> </ul>

The analysis of the apprenticeship systems in Europe identified a few countries with primarily school-based apprenticeship systems and others with primarily company-based apprenticeship systems. In most of the countries, ‘company-based apprenticeships coexist with other vocational training schemes which are mainly school-based’ (European Commission 2012, 30).

A major difference between the two approaches has to do with who has the lead. In company-based apprenticeships, the interested person has to apply for a apprenticeship directly with the company (Figure 1). The company then selects the apprentice and formalises the contract. The apprentice is part of the community of practice at the company and has a status equal to that of an employee. It is for this reason that wages are often paid. The involvement and commitment of the company is high, but selection is intensive, and social inclusion is normally low. The dual systems of Germany and Switzerland are company-based apprenticeships.

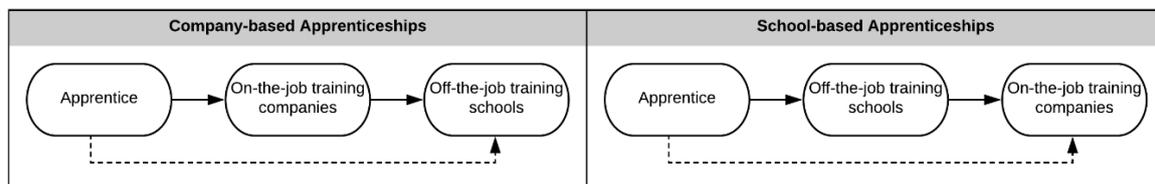


Figure 1: Typical Governance Structure

In school-based apprenticeships, (public) schools (or colleges) are selected by interested persons. The level of social inclusion is mostly high, but the involvement and commitment of the companies are mostly low. Nevertheless, the temporary stay at the company has to be formalised (e.g. trainee contract). The apprentice is not a full and permanent member of the community of practice, and wages are not normally paid. An apprentice is more a student than an apprentice or employee.

The distinction between employment/education or company-based/school-based raises the question of which of the two forms should be promoted and implemented. The dominant contemporary trend is towards the company-based model (OECD/ILO 2017) because of the expected negative effects of school-based learning (skills mismatch, difficult transition into the labour market) and, on the contrary, the positive effects of company-based learning (skills match and better transition into employment). Learning without work potential is only one side of the coin, the other being work with/without limited learning potential. This aspect requires further elaboration.

### ***Characteristics of work: defensive and expansive***

An influential and often-criticised study focusing on the influence of the work environment on the performance of workers has been the Hawthorne experiments of the 1920s and 1930s (Gillespie 1991). Embedded in this wider tradition, Hackman and Oldham published the Job

Diagnostic Survey, intended ‘to diagnose existing jobs to determine if (and how) they might be redesigned to improve employee motivation and productivity’ (Hackman and Oldham 1975, 159). From the perspective of the work psychology, motivation is a key issue. From the VET perspective, learning is the key issue (including motivation). Even if the goals are not identical, the key dimensions overlap. The original five dimensions of Hackman and Oldham (skill variety, task identity, task significance, autonomy and feedback) can nevertheless be used to identify the learning potential of work. These criteria are necessary for such an identification, but not sufficient. For our purposes, the dimensions were further developed (Table 2). The perceived individual observation of these dimensions, combined with the individual ability and motivation to shape the perceived potential in relation to the extended peer support, can increase or reduce the learning potential of a workplace.

Table 2: Expansive and Defensive Work and Work Environments

Job Diagnostic Survey	VET-Perspective	Relation between Work and Learning	
		Expansive Learning Potential	Defensive Learning Potential
Task identity	Completeness of Action	A low division of work with wide-ranging tasks/problems and related single activities, including problem definition, goal setting, planning, execution and evaluation (evaluation: feedback through work)	A high division of work with a focus on isolated activities (e.g. just planning, just execution of narrow activities, external evaluation instead of self-evaluation)
Skill variety	Complexity	Diversity and variety of work, high degrees of vagueness and problems	Monotony of work with equal skills requirements and repetitive activities
--	Time structure	The work organisation includes and allows time for self-reflection	Time pressure at work prevents self-reflection
Task significance	Goal orientation and significance	The goal, importance, function and context of a task or problem is clear	The purpose of the task is unclear
Autonomy	Autonomy and responsibility	High degrees of freedom and decision-making in the work require and create responsibility	Decisions are given by routines, rules, guidelines, specifications, rules; reduced responsibility
Feedback	Social embeddedness, support and feedback	Suggestions, support and feedback from colleagues, the team, supervisor and customer; communality	Limited feedback about the individual, social and professional performance; individuality
--	Development orientation	Tasks are demanding and within the zone of proximal development	Excessive and overstrained demands, or demands are too low
--	Mistake orientation	Mistakes are used to improve performance	Mistakes are penalised

The criteria in table 2 are sorted from more work-related (e.g. completeness and complexity of work) to more work-environment oriented (e.g. development and mistake orientation). The

criteria are nevertheless interrelated. Based on these criteria, work/work environment with learning potential (expansive) and work/work environment without learning potential (defensive) should be distinguished. Work and its environment do not automatically enhance learning and promote the development of self-, social and professional competence. However, some work and work environments, e.g. project work, contain permanent challenges and unsolved problems and promote and require permanent learning on-, near- and off-the-job (Gessler and Stübe 2008).

Other learning barriers have to be considered within a VET perspective. The learning potential within the workplace is limited to the expertise of the master craftsmen/supervisor, the expertise within a company, the expertise within a region and the expertise within a country. Apprenticeships mainly reproduce pre-existing knowledge, competences and expertise. These barriers can be overcome through rotation within a company (internal job rotation), cooperation between companies (external job rotation, e.g. training in a network), reorganisation of processes and division of labour within a company (internal job enrichment) or across companies (external job enrichment, e.g. development of new occupational profiles and curricula such as mechatronics or systems engineering), organisation of in-company training (internal training enrichment), cooperation with an external training provider (external training enrichment), and knowledge exchange between regions and countries either company-based (internal knowledge exchange and creation, e.g. journeyman, joint ventures) or industry-based (external knowledge exchange and creation, e.g. international cooperation).

### **The private-training-market paradigm: deficits or resources?**

Apprenticeships can be seen as goods developed on a private training market. The points of view range from ‘very unattractive option’ to ‘attractive option under certain conditions’ to ‘very attractive option’. The perspectives can be grouped: we distinguish between a *deficit-orientated perspective* and a *resource-orientated perspective*. Arguments supporting a deficit-orientated perspective include:

- *The poaching argument*: Companies offer little or no apprenticeship ‘if they are located in a region with many nearby firms that could potentially poach their apprentices’ (Mühlemann and Wolter 2011, 561). This increases the demand for school-based and publicly financed apprenticeship models.
- *The levy argument*: Companies are risk-averse in making investments. Investments in apprenticeships are considered relatively risk-free if offered to a firm’s own employees and if costs and expected drop-out are low. A levy reduces some financial risk, but it does not guarantee that more employers will become engaged or that engaged employers will train more (Gambin and Hogarth 2017).
- *The subsidy argument*: Subsidies or tax reductions are offered to share costs and stimulate engagement. In countries where subsidies are offered, unintended effects may become visible. Employers ‘are actively incentivised to relabel training courses as apprenticeships that they previously paid themselves’ (Richmond 2018, 21).
- *The precarious workers argument*: Apprenticeships may “locks-in” already disadvantaged young people to precarious pathways and reinforces the nature of an already highly gender-segregated [...] labour market’ (Klatt, Clarke and Dulfer 2017, 473).
- *The information asymmetry argument*: Companies may capitalise on trainings because information asymmetries are in place and can pay wages below the productive added value (Acemoglu and Pischke 1998).
- *The inequality argument*: Recruitment of companies (if not targeted at low-skilled and low-paid jobs) is selective and depends on the expected characteristics — e.g. socio-cultural background, gender, age, behaviour, skills — of a prospective apprentice. This leads to exclusion and publicly financed substitutes (Deissinger 2015).

- *The well-run economy argument:* Company-based apprenticeships are widely dependent on a functioning economy. The collapse, e.g. of the Irish construction industry (2008–2013) led to a collapse of the apprenticeship system which was until then a well-functioning system in this sector, and which was ‘exalted as a model of excellence when economic drivers were favourable’ (Ó Murchadha and Murphy 2016, 383).
- *The outcome argument:* Embedded within a framework of neo-liberal thinking, only the criteria specified as learning outcomes (usually in terms of behaviouristic skills or competencies) must be met. Rules and processes for selecting and agreeing appropriate learning and training content, syllabuses, curricula, training ordinances, supportive infrastructure, qualified apprentice supervisors and trainers and being embedded in a community of learners are seen as unnecessary. The key message: abolish institutional or formal training, leave apprentices alone and privatise skills acquisition to achieve the same (bad) learning and training conditions for all (Young and Allais 2011).
- *The flexibility argument:* Occupations are too broad to train and learn them. After defining occupations and standards for these occupations, the occupational standards are broken down into functional units — by ignoring the interdependence, the real work processes and the necessary work process knowledge — through task analysis, functional analysis or the DACUM approach, which are then transformed into units of competence (equivalent to a qualification) which are further described by competencies (usually in terms of behaviouristic skills). Each unit of competence or qualification can be trained, learned and assessed in an isolated manner. This enables short-term training and ‘flexibility’ for employers and learners (Mansfield and Mitchell, 1996). In sum, this approach produces thousands of units that are no longer controllable, confusion on the employer and learner site, a shift from a logic of quality and content orientation to a logic of registration and bureaucracy orientation, increase of assessment expenditure (with the rise of the assessment and private consultancy market), and, finally, low-skilled (best case) or unskilled (worst case) employees (Allais 2016).
- *The global connectivity argument:* Businesses are globalizing their supply chains, markets are international, and labour is internationally mobile, but apprenticeships are still traditionally oriented towards local and national needs. ‘In short, the more that nations push VET down local and national paths, the more they undercut its value by depriving it of the greatest of all economic and social advantages in today’s world: internationalism.’ (Shaw, Shaw and Blake 2016, 102).
- *The rethinking argument:* In some sectors, the poor training culture cannot be changed. Apprenticeships have to be rethought, and alternatives, such as virtual learning environments and workplace simulations, should be considered (Abdel-Wahab 2011).
- *The not my business argument:* Many employers ‘tend to be reluctant to invest in apprenticeship training, as they expect the broader E&T system, funded by individuals or the taxpayers, to produce appropriately trained employees that they can hire using competitive pay strategies’ (Chankseliani, Keep, and Wilde 2017, 61-62).

Arguments supporting a resource-orientated perspective include:

- *The social partnership argument:* Nationwide, apprenticeships are more successful if they are based on social partnership agreements between key stakeholders, such as employers, trade unions and government (Nyhan 2009).
- *The equality and trade union argument:* Apprenticeship programmes, organised with trade union participation or by trade unions, are better at integrating minorities (Bilginsoy 2005) and women (Berik and Bilginsoy 2000) and have higher completion rates (Bilginsoy 2003) than programmes organised without trade union participation.

- *The pre-training competencies argument:* Pre-training competencies — especially problem-solving competences — acquired in schools before starting an apprenticeship are ‘associated with higher productivity of apprentices, which in turn lowers the firms’ training costs’ (Jansen and Pfeifer 2017, 57).
- *The profit argument:* Apprentices are less productive than skilled workers, but they are nevertheless productive. Under certain conditions and in certain occupations (trade, commercial, craft, construction occupations), this can lead to gross company profits in the short term. However, apprentices in manufacturing occupations produce net training costs during their apprenticeships, but long-term company profits thereafter (Mohrenweiser and Zwick 2009).
- *The benefit argument:* Qualitative apprenticeships can have several positive effects such as innovation and the transfer of ideas, better organisational fit, a pool of specifically skilled workers, savings from the non-recruitment and induction of workers from external sources, easy replacement of ageing workers, lower labour turnover, more committed employees and the cultivation of a culture of sincerity and loyalty, overall greater competitiveness of the organisation and an enhanced reputation for the business and organisation (Asghar, Shah and Akhtar 2016).
- *The sectoral levy argument:* Sectoral levies (e.g. building and construction) can work if the levy is bargained on the basis of collective agreement and commitment from mostly equal companies (not dominated by major players) and if the money is used as an investment to improve the cross-company training capacity (e.g. sectoral training centres) within an industrial sector (Billett and Smith 2003). If the collective money can be privatised (single companies, single stakeholders, e.g. consultants), deadweight effects occur (Kuczera 2017).
- *The non-financial subsidies argument:* Non-financial subsidies — e.g. adjustments in apprenticeship design to make apprenticeships attractive for employers and apprentices, assisting employers in providing apprenticeships with the purpose of ‘capacity building’ (e.g. better apprentice supervisors and trainers) — ‘could make apprenticeships profitable for an employer’ (Kuczera 2017, 11)
- *The relative wages argument:* Wages increase over the apprenticeship period relative to the growth of individual productivity, which depends on individual abilities and the share of demanding skilled work conducted (Mühlemann 2016). Some companies pay wages relative to the level of productivity and the grades achieved in the off-the-job training in vocational schools/colleges/universities (Gessler 2017).
- *The occupation argument:* The development of competence — ‘as an integrated set of capabilities acquired by professionals which enable them to effectively carry out tasks, solve problems, shape innovations’ (Mulder 2017, 1098) and occupational identity (Fuller and Unwin 2013) — requires time, supportive conditions and an orientation towards a coherent and holistic bundle of skills — occupations or occupational profiles (not parcelled and fragmented occupational standards) — needed at the workplace (Brown, Kirpal and Rauner 2007).
- *The youth employment argument:* An ‘increase in the apprenticeship coverage rate is associated with an increase in the youth employment rate’ (Lodovici et al. 2013, 4).
- *The transferability of skills argument:* If apprenticeships foster the acquisition of special skills through on-the-job training and general or transferable skills through off-the-job training, apprentices can switch between employers and occupations, which can enhance individual wealth, overall advantage and further the development of expertise within a sector (Mueller and Schweri 2015).
- *The social media argument:* The use of social media technology can enrich vocational education and training and especially improve the connectivity between in-company learning and formal learning in educational institutions, thereby also bridging private learning environments with public learning environments (Neumann and Ueberschaer 2014).

A misconception in this context means that an argument is considered absolute. While the different arguments in certain contexts are true, they are interrelated and often conflicting – e.g. engagement and intrinsic motivation/subsidization and extrinsic motivation; centralisation/participation; readiness for immediate employment/readiness for higher education; high equality/high esteem; flexibility/occupation) – which can lead to a moving target reform process (Jørgensen, Olsen and Thunqvist 2018).

### Apprenticeship Maturity Model

The ILO (2012, 3) provides an overview of five forms of workplace-based learning (Table 3).

Table 3: Principles of Workplace-based Forms of Learning

	Wage	Legislative Framework	Workplace based	Programme of learning	On-the-job training	Off-the-job training	Formal assessment	Recognised Certification	Duration
Traineeship	Maybe	No	Yes	No	Maybe	No	No	No	Variable
Internship	No	No	Yes	No	Maybe	No	No	No	Variable
Informal Apprenticeship	Pocket money or in kind	No	Yes	No	Maybe	No	No	No	Variable
Workplace Learning	Yes	No	Yes	No	Maybe	No	No	No	Variable
Apprenticeship	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Fixed

The graduation of the criteria is helpful to distinguish the different forms of workplace learning. Nevertheless, the description of apprenticeships seems more prescriptive than descriptive and analytical. Especially in company-based apprenticeship systems, e.g. in the United States, learning programmes are not necessarily standard (Lerman and Rauner 2012). In school-based apprenticeship systems, e.g. in Spain, wages are not necessarily standard (Marhuenda-Fluixá et al. 2017). Moreover, in countries following a ‘flexible’ market logic, e.g. in the United Kingdom, minimum durations are defined (since 2012) but are not necessarily applied (Fuller 2016). A differentiation is needed.

The proposed Apprenticeship Maturity Model follows a development logic: A problem arises, is then addressed, might be solved, and a new problem arises. This process leads to a development which can be described in terms of different maturity levels. Apprenticeships on higher levels normally show a higher competence in addressing and solving problems.

In 2017, the ILO published a ‘Toolkit for Qualitative Apprenticeship’. The ILO approach is based on six key building blocks: (1) meaningful social dialogue, (2) a robust regulatory framework, (3) clear roles and responsibilities, (4) equitable funding arrangements, (5) strong labour market relevance, and (6) inclusiveness (ILO 2017). In 2018, the Council of the European Union (2018, 3) published comprehensive recommendations on a ‘European Framework for Quality and Effective Apprenticeship’. The framework sets out 14 criteria which can be assigned, as well as the ILO key building blocks, to the different levels. In table 4, the proposed six levels are summarised.

Table 4: Outline of the Apprenticeship Maturity Model

Level & Apprenticeship Form	Characteristic	Addressed problem	Unsolved problem	Criteria (EU & ILO)	
6 Collective apprenticeships	Negotiated and agreed cooperation between major stakeholders (state, employer, employees)	Cooperation on the macro level, rights and obligations	Cooperation on the meso level, school-work-place-connectivity on the micro level	Involvement of social partners (EU) Flexibly Pathways and mobility (EU) Meaningful social dialogue (ILO)	Regulatory framework (EU) / Robust regulatory framework (ILO)
5 Process-oriented apprenticeships	Additional interventions into the operation and processes of the system	Ratio between work and learning, relationship between formal, non-formal and informal learning (on-the job, off-the job/ in schools), quality development	Divided responsibilities	Transparency (EU) Quality assurance and tracking of apprentices (EU) Career guidance and awareness rising (EU) Work, health and safety regulations (EU) Clear roles and responsibilities (ILO)	
4 Input-oriented apprenticeships	Additional standards for the input are defined and applied	Financing, curriculum (off-the-job training), training plan (in-company), qualifications of teachers and trainers, infrastructure	Unclear implementation and practice	Pedagogical support (e.g. in-company trainers) (EU) Financial and non-financial support for companies (EU) Equitable Funding arrangements (ILO) Inclusiveness (ILO)	
3 Output-oriented apprenticeships	The output is defined and assessed	Recognised certification, formal assessment, some legislative framework	Lack of involvement of either schools or companies, skills mismatch	Learning Outcomes (EU)	
2 Semi-formal apprenticeships /time-served apprenticeships	Informal sector or artisan organisations involvement	Some Agreements (e.g. wages, duration) and rise of external control	No formal state certificate, separated from the formal economy and education	Written agreement (EU) -- Pay and/or compensation (EU) Social protection (EU)	
1 Informal apprenticeships	Apprenticeships are individually negotiated between master and apprentice	Embeddedness in a community of practice, on-the-job-training	Lack of protection, lack of recognised competences and mobility	Workplace component (EU) -- Strong labour market relevance (ILO)	

On the one hand, the maturity model differentiates between development levels. On the other hand, the higher level can also be initiated, even if the problems on the lower level are not completely solved. The establishment of a school-based apprenticeship starts, e.g. on Level

4, the definition of output and input, but the problem of level 1, the involvement of the companies, is persistent and remains often unresolved.

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## Minutes

The audience had the possibility to formulate online and parallel to the impetus presentation their questions. These questions stimulated and guided the discussion. Because of time restrictions not all questions were discussed, just the questions 1-4.

1. You suppose that all apprenticeship systems are aiming at level 6. This is not true, because the various systems have various aims.
2. Where does this maturity level model come from? Where do we – in reality – find the maturity levels 2-5?
3. It seems that you exclude Higher Education while in Germany exists the best system at “Duale Hochschule”, university and firm based. Do you believe that this system can be a good model for traditional universities?
4. How do adult apprenticeships fit into your framework, from a development perspective?
5. What is the difference between you expansive & defensive dichotomy and Fuller & Unwin’s expansive & restrictive apprenticeship framework?
6. Structuring the argumentation used for apprenticeships is a very useful exercise. However, your dichotomy could be presented as tensions instead of a dichotomy.
7. How to encourage the apprentice to be the creator of their learning at the workplace? Who is able to support and coach them during the time in the company, especially SMEs?

Moso-Diez, M. (2019). The apprenticeship (or dual) triangle: Vocational learning, quality management and challenging innovation. In C. Nägele, M. Gessler, B. E. Stalder, & M. Milana (Eds.), *VET for all – skills for life. Report on the VETNET & ESREA research workshop during the fourth European Vocational Skills Week in Helsinki, 16.10.2019* (pp. xx–xx). <https://doi.org/10.5281/zenodo.3489723>

## **The Apprenticeship (or Dual) Triangle: Vocational Learning, Quality Management and Challenging Innovation**

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### **Abstract**

The purpose of this impetus presentation is to discuss the main challenges of apprenticeships or dual vocational educational training (VET) in Spain from a combined approach of learning and innovation studies in the VET research area, being the VET school at the centre of the debate. Those challenges have been identified as a result of several research projects carried out in the last years at regional level which starting point is the idea that a region's VET system is a fundamental part of its learning and innovation system and must serve that region's needs. In this sense, dual VET might be one of the keys even though is still at an emerging stage. The regional social and economic differences, the institutional governance and a quality guarantee approach imply different dual vet schemes and formats with different levels of integration (17 regions), development, quality and innovation. The analysis show that the main challenges are promoting dual vocational learning formats in terms of quantity and quality, at different VET levels, and promoting innovation at educational and company level. The transformation to a more dual system implies integrating more systematic vocational learning processes, a quality management culture and business innovation-oriented mechanisms. The main catalyser for that transformation is the 'integrated VET school', relying on a favourable environment, flexibility and autonomy, and appropriate resources. From a research perspective, further studies are required, especially explanatory and prescriptive ones.

### **Keywords**

dual vocational education and training; integrated VET school; vocational learning; quality management, innovation.



## Introduction

VET centres are more oriented towards technology dissemination than universities (Toner, 2010). They also have a more practical and incremental focus on innovation (learning by doing, using and interacting – DUI) (Jensen et al, 2007). This strength in dissemination is closely related to the territorial dimension, as VET centres have a more local focus than universities (Rosenfeld, 1998). It is also related to the business dimension as they work mainly with micro-enterprises and SMEs (Albizu et al, 2017). However, VET subsystems (initial VET and VET for employment), and VET schools or centres in particular are not usually included as one of the actors in innovation systems and have little prominence in innovation public policies.

That approach would imply converting VET schools (providing the traditional function of training) into multi-functional centres (teaching, provision of technology services to SMEs, local development, etc.). This would not, however, mean performing every one of those functions, as those would depend on the needs in the local and cultural environment, the characteristics of the VET system, the local economy and business fabric, sociodemographic trends and collaborative routines. Increasingly, VET centres are conceived as a type of regional innovation player, as different regional case studies show their capability to develop strong interaction with micro-enterprises and SMES to support applied innovation, becoming a technology transfer catalyst for local innovation systems (Olazaran et al., 2013; Albizu et al., 2017; Navarro et al., 2018, 2019; Moso-Diez, 2019, etc.). In any case, more research on VET is needed in Spain in general (Echeverria and Martinez, 2019) and specially about this emerging issue.

## Context

Spain's VET has a 'school-based' learning scheme, although its traditional VET programme does include alternating work-school training, dual VET has been recently introduced (2012-2013).

According to the European Commission (2018), Spain has yet to address the following challenges. First, it is needed to increase access to VET, in particular IVET. While enrolment rates have increased considerably in recent years (see Table 1), there is still room for improvement, especially in IVET, uptake of which is half the EU-23 average. Second, it is recommended to increase qualifications. In Spain, 33% of first-time upper secondary graduates held a vocational qualification in 2017, compared to the OECD average of 40% and the EU23 average of 46%. Third, the potential for growth in VET student numbers is connected to the early school-leaving rate among Spaniards aged 18–24. This rate is the highest (17.9%) in the EU-28 (10.6%) and although it has fallen in recent years it remains a major challenge for the Spanish education system, since the EU has set the goal of achieving no more than 10% dropout throughout the European Union by 2020 (MEFP, 2019: 29). Finally, it is recommended to reduce the mismatch between skills supply and demand, particularly as regards advanced technologies. Nonetheless, sufficient supply of companies for internships, although some centres should enlist the participation of new companies.

Table 1. Number of students enrolled on VET courses

Programmes	2007-2008	2012 -2013	2017-2018	2018-2019	2019-2020*
Basic VET	0	0	72.180	74.009	74.947
Intermediate VET	239.559	332.495	344.266	350.820	358.657
Higher-level VET	222.933	328.552	398.908	413.935	428.302
Total	462.492	661.047	815.354	838.764	861.906

\* Forecast academic year. *Source:* Compiled in-house using MEFP data (2019)

The Dual Vocational Training modality was launched alternating teaching and learning processes in the company and in the educational centre. Both organizations establish a

collaboration agreement to work together in the training processes, through a shared work scheme that marks the contents, hours, key figures (trainer, tutor, instructor), phases, work and evaluation guidelines, etc. A minimum of 33% of the training hours of the degree with participation in the company is established. This percentage can be increased depending on the characteristics of each professional module and the participating company. The total duration of the cycles is 2,000 hours. This modality is articulated either through an employment contract, or through scholarships. As the Spanish regulatory framework on VET and dual VET is very generic, its implementation in the 17 autonomous communities or regions is very diverse (Echeverría and Martínez, 2018). In some regions (Basque region, Navarre, etc.) traditional work-school VET programmes were quite intensive previously to the new regulation and they were the first ones in Spain to separate general education from VET. That way their networks of centres are specialised exclusively in VET, at various level of qualification, providing a strong base from which to promote dual VET. It is relevant to outline that the staff, quality assurance, financing schemes, infrastructure, etc. are typical of secondary schools and not of tertiary education, which is the level at which HVET is entered in the statistics.

In table 2 it can be observed that the advance of dual VET is slow and its growth margin wide in all levels.

Table 2. Percentage of all students in IVET (2016-2017 / 2015-2016)

	2016-2017	2015-2016
Dual Basic VET	0,6%	0,3%
Dual Intermediate VET	2,2%	1,1%
Dual High VET	3,3%	2,4%
TOTAL	2,6%	1,6%

*Source:* MEFP (2018)

### Main challenges

*Vocational learning* understood as a ‘systemic apprenticeship’, which triangulates the different areas or subsystems: macro (educational, social, competitiveness and sustainability), meso (vocational training centres, companies and other organisations) and micro (teachers, apprentices, tutors). Two main subsystems can be identified within VET: school-based VET and VET for employment at macro, meso and micro level.

In Spain companies are increasingly demanding high technological skills, which is why specialisation programmes are being set up to address the specific needs of companies. Normally, these programmes involve new ways of learning which, on the one hand, alternate different learning spaces (vocational training centres and companies) and co-training schemes (dual modality and/or alternation); and, on the other hand, new methodologies (collaborative, participative and challenge-oriented). In general, multidisciplinary teams are created at the beginning (with professionals from the company and teachers from the vocational training centre) who, depending on the productive needs of the companies, design real projects that pursue concrete results (projects under challenges). One of the pioneers in enabling this type of initiative has been the Basque Government in 2016 (Decree 14/2016 of 2 February 2016), facilitating the implementation of specialisation programmes directed in an agile way, and always as a result of the demand of companies, under schemes of co-participation and co-responsibility.

*Quality assurance* understood from a ‘managerial approach’. It is relevant to ensure that learning processes are of quality, with shared and recognised evaluation mechanisms, and subject to appropriate accreditation and qualification. All this implies a good definition, measurement, structuring and management of quality at the level of processes, organisational structures and results. In the medium and long terms a quality culture is internalised in the organisational routines and actors interactions.

The introduction of quality management systems at dual VET should be pursued, along with policies, organisations and structures for the areas of educational methodology, technology and enterprise relations. That introduction implies resources and recognitions of dedicated roles at VET centre level.

*Challenging innovation* seen as a ‘exploring and living experience’. Advanced apprenticeships formats tend to develop tacit and explicit mechanisms, instruments and initiatives that incorporate innovation as part of the development of an apprentice (open mental models, exploring new ways, being conscious of incremental innovation patterns, etc.). For example, through dual formats under exploration projects or specific innovation challenges. The figure of innovation projects is built upon collaborative learning based on challenges which are based on the fact that learning processes must be rooted in real contexts and with challenges oriented towards explicit achievements. In this way, the project takes on the challenge of improving and/or innovating a company, and the VET centre tackles this challenge through a mixed team (teachers, tutors and students) who, using collaborative methodologies, work to respond to it. This learning scheme gradually leads to a more diffuse differentiation between the training centre or classroom and the company. The interest of this type of project is that it achieves a triple result: first, it responds to a business need; second, it promotes the development of technical and transversal skills (personal, digital, creativity, teamwork, entrepreneurial initiative, etc.) in students and / or apprentices; and third, it improves the relationship and trust between centers and companies by providing a breeding ground for collaboration and mutual learning. The results of these new learning and innovation methodologies between vocational training centres and companies have very positive evaluations of the results (Mujika and Intxausti, 2018).

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## Minutes

A presentation of the above paper was made by the author to a workshop of VETNET and ESREA researchers. The session was moderated by Prof. Barbara Stalder. The starting point was the development of the new Spanish dual VET system. The discussion that followed the presentation emphasised a number of significant issues that need to be taken into consideration and further explored when researching aspect of Dual VET systems in Spain and comparatively in the EU.

The following questions were considered:

- Q1. What are the main challenges of Dual VET in Spain?
- Q2. Does a multifunctional (integrated school) VET model improve apprenticeship in a school-based system?
- Q3. Could innovation be an incentive to promote apprenticeship in companies?

These questions were formulated to facilitate discussion and offered an initial impetus for consideration of the key issues related to the questions above. It is important to point out that the main underlying focus of the workshop is how research can help address existing challenges in the field of VET and apprenticeships.

After a short group discussion, feedback was collected via Mentimeter which was overseen and collated by Prof. Barbara Stalder. The author and presenter then answered those questions which were particularly relevant and pertinent to discuss at hand in a workshop.

Researchers made relevant statements in relation to several issues aspects regarding the issues raised in the presentation. Main points included the following questions:

- From a systemic perspective:
  - The relevance of the regulation and institutional architecture in terms of territory and governance (at national and regional level).
    - How many different models can a VET system foster?
    - What makes a regional VET system different (the economy, transport, etc.)?
    - How can research cooperate to policy making at European level when local/regional differences are so relevant?
  - The transferability of a dual VET model from one country to another or from one region to another was discussed.
    - Is it possible to transfer a VET system from one country to another? And between regions?
    - How far is the apprenticeship system a European vision which takes insufficient account of country history and context?
- From a quality perspective:
  - The need for professionalized and shared quality management systems was discussed as a measure to improve the quality of implementation of the dual system.
    - Is quality management really solving the VET quality problem?
    - How does quality relate to management?
  - It is noted the need to investigate the impact of the dual VET model on young people.

- Does your research give any insight into the value of either type of apprenticeship for the young people?
- From an innovation perspective:
  - Applied innovation was pointed out as a key to improve the interaction between the VET system and the small and micro companies, exploring new collaborative mechanism and practices.
    - Will innovation help with potential skills shortages?
  - Additionally, the question arose as to how some innovative experiences could be transferred in apprenticeship training at regional level.
    - Is innovation happening in other places than Basque region?

## Conclusions

### *About the Spanish dual VET system*

As outlined in the presentation and paper, the development of the Spanish dual VET system is timid and reluctant. Different factors influence the speed and extent of the dual VET implementation in Spain. Firstly, recent Spanish legislation on Dual VET is so ambiguous and generic that each autonomous community has gradually constructed its own model. Moreover, there is a fragmentation of the VET system, responsibility for which is split between the Education and Employment Ministries/Departments. Secondly, given the small business size, it is needed to create mechanisms that ensure the dual training provided by these businesses is of good quality, achieved by means of business accreditation, training of trainers and tutors, creation of a central registry of collaborating businesses, and so on. Besides, the characteristics of the local context is relevant (economic-business structure, existence of other knowledge infrastructure, degree of socioeconomic development, powers and policies of local government, etc.).

Thirdly, VET schools or centres need to change qualitatively (more incentives for teachers, the organisation of their governing bodies, the industrial experience of its staff, their collaborative culture, potential misconceptions about dual model, their professional management and autonomy, etc.) and quantitatively (given the insufficient number of centres offering dual VET and their traditional funding and managerial schemes). Additionally, it could be increased the number of integrated centres, encouraging VET trainers to spend time in businesses to acquire necessary experience, using external staff or interim staff to teach certain courses, etc. Finally, from a company perspective, it is noted there is a lack for public incentives for companies to implement Dual VET as well as a non-consolidated apprenticeship culture. Nonetheless, the most active ones are convinced that there are sufficient motivating factors overall to encourage their participation.

From a change perspective a powerful lever of transformation is the ‘integrated VET school or centre’ (as an organisational unit) which with a favourable frame and conditions, can be a catalyst of dual VET. This type of school integrates two main subsystems (school-based VET and VET for employment) as well as develops flexible and agile ‘dual formats’ and offers multifunctional activities (technical services, networking, etc.) that bring the VET system closer to companies.

The current dual VET system needs to be discussed and rethought in a participative and collective way (from both top-down and bottom-up approaches). To transform a mature system like the Spanish one into a dual system is relevant to approach it from the macro, meso and micro dimensions of the VET system. In this sense, both territory and public-private collaboration culture are key factors of this transformative process as well as institutional and regulatory framework. Different actors (companies, vocational schools, authorities, etc.) need to join their forces and need to change their mindsets, to develop new learning processes and collaborative structures and ways of doing. Vocational learning needs to be understood as a systemic way of

learning, quality must be guaranteed, and innovation is a must. The starting point is to improve the dual VET system working from the current strengths to the potential opportunities in Spain.

### **About dual/VET research in Spain**

- *Basic research*
  - More scientific research on VET is needed

One of the analysis that we have recently been involved is the study of how researchers have addressed VET in recent years in Spain (Echeverria and Martínez, 2019). They analysed the development of research output (published in Spain) on IVET under the Spanish system, examining the period between 2005 and 2017. The results show that scientific production is scarce, fragmented and disperse, in addition to being more descriptive than explanatory or prescriptive. Moreover, there are few consolidated research groups and funding is precarious. Finally, there is practically no research into Dual VET in the theses and articles examined. However, the number of project reports is increasing in Spain.

- Need to include VET in the Spanish research and innovation strategy, agenda and system

Spanish research must aspire to grow up in quantitative and qualitative terms. To achieve this, it is necessary to prioritise it politically, reinforce it in programmes and allocate it resources under cross-innovation and -fertilisation schemes backed up by transparent assessment mechanisms.

- About policy research
- Need for evidence for Spanish VET
- Scarce and disconnected statistics
  - Mainly administrative data, without indicator/analytical frameworks
  - Different data collecting systems
- Lack of impact evaluations
- Scarce legislative monitoring
- Emerging analytical (quantitative and qualitative) reports
- Need for improving institutional capabilities to produce and absorb rigorous evidences.
- Research is primarily geared towards finding evidence for better planning of VET policies, not so much for evaluation.
- Growing trust of authorities in scientific studies
  - At regional level we are involved in promoting and fostering scientific studies conducted by universities at the request of political authorities.
  - Communication between researchers and authorities is key to mutual understanding.
  - The collaboration of facilitating agents such as foundations or other intermediate organisations can help to build bridges for mutual understanding.
  - Project definition and monitoring are key to its success.

To sum up, more high-quality knowledge, empirical evidence and applied innovation relating to dual/VET is needed as input when designing, monitoring, assessing and enhancing policies and approaches in the Spanish VET domain.

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## **Participation in Adult E&T in the European Union: New Perspectives on System-Level Determinants**

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### **Impetus presentation**

System characteristics play a key role in lifelong learning participation, for example, the organization of education; labour market institutions, established production modes within firms; quality of childcare; the (perceived) costs of lifelong learning; and the indicators of economic development. Overall it is argued that these system characteristics particularly restrict low-educated (young) adults from access to lifelong learning. In particular, low-educated (young) adults, who face income pressure, do not choose for formal learning pathways as a means to increase labour earnings, as opposed to the general (middle- or high-educated) working force. Consequently, a discrepancy between low-educated and high-educated in the participation rates in adult E&T can be observed (Pont, 2004). This may have implications for the society as a whole.

In order to further investigate this claim, we provide estimates in the ENLIVEN Project on the accessibility of adult E&T across different socioeconomic groups and its impact on economic growth (Cabus & Stefanik, 2019). For the empirical analysis, we have constructed a pseudo-panel dataset that contains regional level information using the European Union Labour Force Survey (EU LFS) from the periods 2011 to 2016. To this dataset, we have added over 80 variables coming from other reliable sources, such as the World Bank or UNESCO. In total, we could collect information on 23 European countries, or 211 regions.

The main results indicate that societies, facing larger dissimilarities in adult learning opportunities across educational levels, fare worse than societies with equality in opportunities (Cabus & Stefanik, 2019). Further, we find that consequences of restricted access to adult E&T for disadvantaged adults are largest, if technical change lead to process innovations, for which adult learning is required, but wherein disadvantaged adults cannot engage (Cabus et al., 2019). In particular, technological transformations lead to automation of jobs with a high level of routine-tasks (Autor et al., 2003; Goos et al., 2009). These jobs are typically executed by low- and middle-skilled workers. At the same time, technological transformations boost the demand for workers in non-routine complex jobs (Ibidem). From these workers it is expected that they invent ways to automate (routine-) tasks, often as a way to increase productive efficiency. From the pseudo-panel dataset, we argue that professionals, who produce and invent new information and communication technologies (ICT) increase their share in the labour force relative to other professions (CEDEFOP, 2013). And, in addition to that, Autor (2003) and Goos et al. (2009) suggest that jobs with a high level of non-routine non-complex tasks are largely unaffected by the introduction of more robots to automate tasks. Non-routine non-complex jobs, typically carried out by low- to medium-qualified adults, seem hard to automate due to its "human



component" which robots still cannot takeover. Workers in the personal service and personal care (PSPC) sector, are a good example of workers in non-routine non-complex jobs. Examples of tasks they do, are caring for patients and elderly, supervision and assistance for children, for example, while parents are at work, a cleaning lady, or a barber.

In the ENLIVEN Project, we explored the extent to which job typologies matter for participation in adult E&T from the perspective of the employment dynamics observed in a digital era. Doing so, we tried as much as possible to claim causal effects of occupational change on participation in adult E&T by using carefully selected empirical strategies (read more in Cabus et al. (2019)).

Findings demonstrate that variations in participation rates in adult E&T do not only depend on differences between countries and regions, but also depend on sectors of employment or job typologies. Goal and field of the learning activity substantially differ across sectors of employment or job typologies, because: (1) different job typologies are differently influenced by external forces that play a significant role for changing job contents and tasks; and (2) different job typologies attract different types of workers (and Cabus et al. (2018) show that worker characteristics matter for participation in adult learning across varying institutional contexts).

In fact, regions further advanced in occupational change show an increased intensity in adult learning. Furthermore, we observe that employment dynamics in the digital era influence adult E&T (and particularly so, workplace learning) through changes in skill demand across the regional labour market. Participation in job-related courses is indeed significantly mediated by the effective skill demand by firms, in particular, among ICT professionals, and to lesser extent among PSPC workers. In line with aforementioned different goals and field of learning activity across job typologies, we argue that job-related courses are offered to PSPC workers as to start working in the job (e.g. as a result of active labour market policies), while ICT professionals engage in adult learning as a way of upskilling their skills (i.e. stimuli for continuous professional development). Given the extent to which their jobs are largely characterized by differences in educational attainment, this further explains the variation in E&T between low- and high-educated adults, and large observed differences between countries in the overall participation rate in adult E&T.

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## Navigating the Structures of Adult Learning in Europe<sup>3</sup>

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### Abstract

This short paper discusses a newly constructed seven categories typology of adult learning provision available for low-qualified adults across Europe. This work was undertaken as part of the H2020 project ENLIVEN – Encouraging Lifelong Learning for a Vibrant and Inclusive Europe. Documentary analysis resulted into defining the following categories: (1) basic skills and education, second chance and upper secondary education, (3) post-secondary VET, (4) apprenticeships, (5) Training that forms part of Active Labour Market policies, (6) workplace and job-related learning and (7) personal or social learning. Comparing providers operating in different types of European countries revealed that opportunities for low-educated adults to participate in adult education is unequally distributed.

### Introduction

This short paper aims to provide insights into the categorisation of education and training structures available for younger vulnerable adults in Europe. This contribution specifically focuses on structures of adult learning available for those adults who typically did not qualify for entry into tertiary education. As such, participation in higher education is excluded from this short paper.

The main aim of this paper is to reflect on differences and similarities that exist between countries in relation to their availability of education and training opportunities. This is done based on a seven categories typology of education and training provisions which we constructed as part of the Horizon 2020 project ENLIVEN. European countries that participate in this work were Austria, Belgium (Flanders), Bulgaria, England, Estonia, Italy, Slovakia, Scotland and Spain. Australia participated in the project as well as a self-funded partner.

### Document analysis

Participation in adult education and training can only take place when high quality provision is available to the adult. In order to further understand the European landscape of education and training provision, we conducted a documentary analysis to further understand the ways in which education and training opportunities are being structured for low-educated adults. We started with scrutinizing evidence on provision based on policy-oriented and academic documents, constructed a new seven categories typology and explored the different types of providers offering education and training in the different European countries and Australia. We focussed on the following documentary sources:



<sup>3</sup> Parts of this short paper will be published as a policy brief of the H2020 project ENLIVEN

- Reports published by the OECD
- Reports published by the European Commission, including work undertaken at Eurydice, Cedefop and DG EMPLOY's expert network on adult education
- Reports published by UNESCO
- Codebooks of large international surveys containing information on adult education participation: PIAAC's Survey of Adult Skills, the Labour Force Survey, the Adult Education Survey and the Continuing Vocational Training Survey,

### **Seven category typology**

In focussing on these documents, we found a number of ways in which adult education provision has been categorised by international organisations. We further scrutinized these categorisations for their focus on low-educated adults (adults who did not qualify for entry in higher education) and found that existing typologies did not make explicit distinctions between target groups. We therefore decided to construct a new typology of adult education provision for low-educated adults. This typology is relevant for use in future research, but also for generating further policy discussions on the roles of education and training for low-educated adults. The seven categories are (1) basic skills and basic education, (2) second chance and upper secondary education, (3) post-secondary VET, (4) apprenticeships, (5) training that forms part of Active Labour Market Policies, (6) workplace and job-related learning and (7) personal or social learning, and will now be defined one by one.

1. **Basic skills and education:** provision offering this type of education focuses on courses equivalent to primary or early secondary education. This type of education lays the foundation for further learning, preparing adult for low skill employment and increased active citizenship.
2. **Second chance and upper secondary education:** this type of education is offered at upper secondary education level and can help people to prepare them for further study, including tertiary education. Adults finalising this type of education will have developed skills for intermediate level employment and will have increased sense of active citizenship.
3. **Post-secondary VET:** Formal VET (Vocational Education and Training) is spread over different educational levels, including basic skills and second chance education. Post-secondary VET is a route that can be followed by adults who do not have obtained secondary qualifications but do not necessarily have the right qualifications or skills to transfer into academic routes of tertiary education. As such, post-secondary VET can act as a route into tertiary education or help adult to prepare for entrance to specific occupations.
4. **Apprenticeships:** apprenticeships have been defined as dual training programmes in which – often young – adults with low education participate in education and the labour market with the aim to recognise a professional qualification.
5. **Training that forms part of Active Labour Market policies:** this type of training is mainly targeted towards the unemployed low educated, adults at risk of unemployment or those in need for support when making transitions into employment. Depending on the nature of the context, this type of training might be mandatory for people claiming unemployment benefits.
6. **Workplace and job-related learning:** this type of training takes part outside of the formal education system but is targeted towards those low-educated who are in employment, mostly to support their current working activities.
7. **Personal or social learning:** provision in education and training can also focus on non-formal, non-vocational education and training in which low educated adults participate for pleasure, personal and social motivation.

## Providers and provision in the welfare states

Having defined these seven types of adult education and training provision available for those not qualifying for tertiary education, we then scrutinised different types of providers available in the participating countries in our project. These countries did not end up in our project by accident, but were intentionally chosen to represent different types of welfare states. We reflected on work published by Roosmaa and Saar (2017)<sup>4</sup> to distinguish between Liberal, Coordinated and Dependent Market Economies, which differ in relation to the ways in which they have – for example - structured their labour markets, education and training system and economic governance.

Providers were mapped onto the seven types of provision described above. Underpinned by insights in available education and training statistics and the social policy literature, we made the following observations:

- *Liberal welfare states* (England, Scotland and Australia) tend to have a wide range of providers offering different types of provision, both in the public and the third sector. They tend to have a rather high number of private providers too, and a weaker focus on training that forms part of Active Labour Market policies. Employers make limited investments in education and training.
- *Conservative continental welfare states* (Austria, Flanders) tend to have a good range of provision across the different types of education and training. The public sector is involved in offering and supporting education and training across the range. Third sector provision is mainly focussing on personal or social learning. Access to VET and training as part of Active Labour Market policies is generally well developed. Apprenticeships for adults were found to be stronger developed in Austria than in Belgium.
- *Southern European welfare states* (Spain, Italy) have rather uneven levels of adult education provisions and participation rates seem to demonstrate significant regional differences. More providers offering second chance education are needed and while training as part of active labour market is being developed, funding is not always adequate.
- *Post-socialist neo-liberal welfare state* Estonia offer adult education and training in specific adult education institutions, although initial education schools are being used too. Some financial support is available and there is especially a good level of provision for post-secondary VET. Provision of basic and second chance education is limited as well as that of apprenticeships. Third sector involvement is low but does offer provision in the area of personal and social learning.
- *Post-socialist embedded neo-liberal welfare state* Slovakia has a limited adult education infrastructure, basic education does not seem to exist and second chance education and training as part of Active Labour Market Policies is underdeveloped. Apprenticeships and forms of VET for adults is being developed. Generally, there is a lack of financial support for adult learners.
- *Post-socialist Balkan welfare state* Bulgaria has an unbalanced geographical spread of provision of adult education and limited provision of basic and secondary chance education. Apprenticeships and other forms of VET are being developed. Training as part of Active Labour Market Policies is available and the analysis shows that the strongest net effect of Active Labour Market policies occurs among persons with basic and lower education.

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<sup>4</sup> For an overview on welfare typologies linked to adult education, please consult Roosmaa, E.-L. and Saar, E. (2017). Adults who do not want to participate in learning: a cross-national European analysis of their perceived barriers. *International Journal of Lifelong Education*, Vol. 36, pp. 254-277.

The summary demonstrates that, in accordance to the literature on European welfare states, significant differences between countries exist. It will be needed to open up the discussion on how to come to a more equal distribution of adult education opportunities in the different countries.

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Roosmaa, E.-L. and Saar, E. (2017). Adults who do not want to participate in learning: a cross-national European analysis of their perceived barriers. *International Journal of Lifelong Education*, Vol. 36, pp. 254-277.

## Minutes

We have had a discussion on the question: Your results regard participation and inequality seems to reiterate what we know for a long time as the Matthew effect in adult learning. What's the difference to these previous findings?

Response: The ENLIVEN team collected data for the first time at the regional level in a pseudo-panel database on participation in adult E&T and over 80 other variables with regard to institutional level features. Owing to this large and rich database we are allowed to make causal claims (does inequality impact societies' outcomes); which was up till now not feasible with other kinds of dataset, because these models cannot control for the part of system level features at country level that are unobserved, or not measurable in variables.

Another discussion point raised was the classification of people into groups and call them 'disadvantaged'. Response to this was the example of educational attainment: is it an individual level feature or a system level feature? Aren't societies producing their own dropouts. Furthermore, researchers use classifications that are there in order to do empirical work. It is not the intention to stigmatize people, however, some people suffer more from disadvantages on the labour market than other people. As researchers we observe that and use it in empirical work in order to understand better why disadvantaged adults get excluded from adult E&T and what can be done about it.

## **Appendix**

### **European Framework for Quality and Effective Apprenticeships**

## I

(Resolutions, recommendations and opinions)

## RECOMMENDATIONS

## COUNCIL

## COUNCIL RECOMMENDATION

of 15 March 2018

on a European Framework for Quality and Effective Apprenticeships

(2018/C 153/01)

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 166(4) and Article 292, in conjunction with Article 153(2) and Article 153(1) point (b), thereof,

Having regard to the proposal from the European Commission

Whereas:

- (1) Quality and effective apprenticeships that lead to a combination of job related skills, work based experience and learning, and key competences facilitate young people's entry in the labour market, as well as adults' career progression and transition into employment. They are part of the formal vocational education and training (VET) systems and they exist in parallel to other work-based learning and/or vocational pathways.
- (2) Well-designed apprenticeship schemes benefit both employers and learners as well as reinforce the link between the world of work and the world of education and training. High quality standards avoid that apprenticeships are geared towards low-skilled jobs and poor training that damage their reputation. In addition to providing a pathway to excellence, quality apprenticeships can also contribute to fostering active citizenship and social inclusion by integrating people of different social and personal backgrounds into the labour market.
- (3) Quality and effective apprenticeships are established through structured partnerships involving all relevant stakeholders, particularly social partners, businesses, intermediary bodies such as chambers of industry, commerce and crafts, professional and sectorial organisations, vocational education and training institutions, youth and parent organisations, as well as local, regional and national authorities. Since 2013, the Commission in cooperation with Member States and relevant stakeholders promotes the supply, quality and image of apprenticeship through the European Alliance for Apprenticeships, which has so far mobilised more than 700 000 offers for apprenticeships, traineeships or first jobs offers. Business led initiatives like the European Pact for Youth have mobilised more offers and helped promote business-education partnerships across the Union.
- (4) The European cross-industry social partners have collected evidence building on quality and cost-effectiveness of apprenticeships through their parallel work and their Joint Statement Towards a Shared Vision of Apprenticeships from June 2016 that was the basis for the opinion on A Shared Vision for Quality and Effective Apprenticeships and Work-based Learning adopted on 2 December 2016 by the Advisory Committee on Vocational Training (ACVT).
- (5) In order to ensure an even deeper and broader involvement of stakeholders, the Commission organised hearings at two stages, on 30 March and 7 June 2017, with European cross-industry and sectorial social partners, and the chambers of commerce, industry and crafts.

- (6) The European Qualifications Framework (EQF) first established in 2008 and revised in 2017 <sup>(1)</sup>, improves the transparency, comparability and portability of citizens' qualifications, including apprentices.
- (7) The Council Recommendation of 18 June 2009 on a European Quality Assurance Reference Framework for Vocational Education and Training (EQAVET) <sup>(2)</sup> established a reference instrument to help Member States promote and monitor continuous improvement of their vocational education and training systems.
- (8) Through the 2012 European Quality Charter on Internships and Apprenticeships, the European Youth Forum urged the European countries, European institutions and social partners to establish or reinforce legal quality frameworks for apprenticeships.
- (9) The Council Recommendation of 22 April 2013 on establishing a Youth Guarantee <sup>(3)</sup> recommends that Member States ensure that all young people under the age of 25 years receive a good-quality offer of employment, continued education, an apprenticeship or a traineeship within four months of becoming unemployed or leaving formal education.
- (10) The European social partners, the European Commission and the Lithuanian Presidency of the Council of the European Union engaged to contribute to the supply, quality and attractiveness of apprenticeships in a Joint Declaration establishing the European Alliance for Apprenticeships on 2 July 2013.
- (11) The Council Declaration on the European Alliance for Apprenticeships from 15 October 2013 noted that the effectiveness and attractiveness of apprenticeship should be encouraged by their adherence to several common guiding principles.
- (12) The Council Recommendation on a Quality Framework for Traineeships <sup>(4)</sup> adopted on 10 March 2014 established a number of principles to improve the quality of traineeships outside formal education and training.
- (13) Under the Copenhagen process for European cooperation on vocational education and training, the Riga Conclusions of 22 June 2015, endorsed by the Ministers in charge of vocational education and training, made work-based learning in all its forms, with special attention to apprenticeships, and developing quality assurance mechanisms, two of the five European priorities for the period 2015-2020.
- (14) The Education and Training 2020 Working Group on Vocational Education and Training developed 20 guiding principles on high-performance apprenticeships and work-based learning during its mandate 2014-2015.
- (15) In its report on Erasmus+ and other tools to foster mobility in vocational education and training – a lifelong learning approach of 4 March 2016, the European Parliament called for measures to ensure quality standards for apprenticeships.
- (16) Regulation (EU) 2016/589 of the European Parliament and of the Council <sup>(5)</sup> stipulates that apprenticeships based on an employment contract can be advertised on EURES — The European job mobility portal as of May 2018.
- (17) In its Communication of 10 June 2016 on A New Skills Agenda for Europe the Commission stressed its support to social partners to take forward the results of their joint projects, for example establishing a quality framework for apprenticeships.
- (18) The Commission Communication Investing in Europe's Youth from 7 December 2016 <sup>(6)</sup>, called for a renewed effort to support young people to get the best possible start in life by investing in their knowledge, skills and experiences, helping them to find or train for their first job. The aim was to help young people seize opportunities, integrate well into society, become active citizens and pursue a successful professional career, including through a quality framework outlining key principles for apprenticeship schemes.
- (19) The Rome Declaration of 25 March 2017 includes the pledge to work towards a Union where young people receive the best education and training and can study and find jobs across the continent.

<sup>(1)</sup> OJ C 189, 15.6.2017, p. 15.

<sup>(2)</sup> OJ C 155, 8.7.2009, p. 1.

<sup>(3)</sup> OJ C 120, 26.4.2013, p. 1.

<sup>(4)</sup> OJ C 88, 27.3.2014, p. 1.

<sup>(5)</sup> OJ L 107, 22.4.2016, p. 1.

<sup>(6)</sup> COM(2016) 940 final.

- (20) The European Pillar of Social Rights proclaimed on 17 November 2017 sets out a number of principles to support fair and well-functioning labour markets and welfare systems, including the right to quality and inclusive education and training, to ensure skills relevant for the labour market and for participation in society.
- (21) The Commission proposal for a Council Recommendation on graduate tracking adopted on 30 May 2017 aims to improve the availability of qualitative and quantitative information about what graduates, including apprentices, do after they complete their education and training.
- (22) The European Structural and Investment Funds (2014-2020), namely the European Social Fund (ESF) and the European Regional Development Fund (ERDF), as well as Erasmus+, the Union programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises (COSME), the Union Programme for Employment and Social Innovation (EaSI), and the Youth Employment Initiative (YEI), provide support for apprenticeships.
- (23) Recently, the European Parliament and stakeholders called on the Commission to boost long term mobility of apprentices across the EU, providing young people with the opportunity to develop both job specific skills and key competences. The Commission responded by introducing in the Erasmus+ programme a new activity called Erasmus Pro which specifically supports longer work placements abroad.
- (24) In its reports on the Youth Guarantee from 2015 and 2017, the European Court of Auditors recommends that the Commission develop quality criteria for apprenticeships and other offers supported under this initiative.
- (25) A common understanding among Member States of quality and effective apprenticeships supports their efforts to reform and modernise apprenticeship systems that provide an excellent learning and career pathway. A common understanding contributes to increasing mutual trust and thus facilitates cross-border mobility of apprentices.
- (26) The overall objective of this Recommendation is to increase the employability and personal development of apprentices and to contribute to the development of a highly skilled and qualified workforce, responsive to labour market needs.
- (27) The specific objective is to provide a coherent framework for apprenticeships based on a common understanding of what defines quality and effectiveness, taking into account the diversity and traditions of vocational education and training systems and policy priorities in the various Member States.
- (28) This Recommendation does not affect the competences of the Member States to maintain or establish more advanced provisions for apprenticeships than the ones recommended here, nor to maintain or develop other forms of work-based learning and/or vocational education and training outside the scope of the Recommendation and to apply to them, in full or in part, the criteria set out below.

HAS ADOPTED THIS RECOMMENDATION,

Member States should, in accordance with national legislation and in close cooperation with stakeholders, ensure that apprenticeship schemes are responsive to labour market needs and provide benefits to both learners and employers, by building on the criteria for quality and effective apprenticeships set out below.

For the purposes of this Recommendation and without prejudice to national terminology, apprenticeships are understood as formal vocational education and training schemes that

- a) combine learning in education or training institutions with substantial work-based learning in companies and other workplaces,
- b) lead to nationally recognised qualifications,
- c) are based on an agreement defining the rights and obligations of the apprentice, the employer and, where appropriate, the vocational education and training institution, and
- d) with the apprentice being paid or otherwise compensated for the workbased component.

**Criteria for learning and working conditions***Written agreement*

1. Before the start of the apprenticeship a written agreement should be concluded to define the rights and obligations of the apprentice, the employer, and where appropriate the vocational education and training institution, related to learning and working conditions.

*Learning outcomes*

2. The delivery of a set of comprehensive learning outcomes defined in accordance with national legislation should be agreed by the employers and vocational education and training institutions and, where appropriate, trade unions. This should ensure a balance between job-specific skills, knowledge and key competences for lifelong learning supporting both the personal development and lifelong career opportunities of the apprentices with a view to adapt to changing career patterns.

*Pedagogical support*

3. In-company trainers should be designated and tasked to cooperate closely with vocational education and training institutions and teachers to provide guidance to apprentices and to ensure mutual and regular feedback. Teachers, trainers and mentors, specially in micro-, small and medium-sized companies, should be supported to update their skills, knowledge and competences in order to train apprentices according to the latest teaching and training methods and labour market needs.

*Workplace component*

4. A substantial part of the apprenticeship, meaning at least half of it, should be carried out in the workplace with, where possible, the opportunity to undertake a part of the workplace experience abroad. Taking into account the diversity of national schemes, the aim is to progress gradually towards that share of the apprenticeship being workplace learning.

*Pay and/or compensation*

5. Apprentices should be paid or otherwise compensated, in line with national or sectoral requirements or collective agreements where they exist, and taking into account arrangements on cost-sharing between employers and public authorities.

*Social protection*

6. Apprentices should be entitled to social protection, including necessary insurance in line with national legislation.

*Work, health and safety conditions*

7. The host workplace should comply with relevant rules and regulations on working conditions, in particular health and safety legislation.

**Criteria for framework conditions***Regulatory framework*

8. A clear and consistent regulatory framework should be in place based on a fair and equitable partnership approach, including a structured and transparent dialogue among all relevant stakeholders. This may include accreditation procedures for companies and workplaces that offer apprenticeships and/or other quality assurance measures.

*Involvement of social partners*

9. Social partners, including, where relevant, at sectoral level and/or intermediary bodies, should be involved in the design, governance and implementation of apprenticeship schemes, in line with national industrial relations systems and education and training practices.

*Support for companies*

10. Financial and/or non-financial support should be envisaged, particularly for micro-, small and medium-sized companies, enabling cost-effective apprenticeships for companies, taking into account, when appropriate, cost-sharing arrangements between employers and public authorities.

*Flexible pathways and mobility*

11. To facilitate access, entry requirements for apprenticeships should take into account relevant informal and non-formal learning and/or, if relevant, the accomplishment of preparatory programs. Qualifications acquired through apprenticeships should be included in nationally recognised qualification frameworks referenced to the European Qualifications Framework<sup>(1)</sup>. Apprenticeships should allow access to other learning opportunities, including at higher education and training levels, career pathways and/or, where relevant, the accumulation of units of learning outcomes. Transnational mobility of apprentices, either at the workplace or education and training institutions, should be progressively promoted as a component of apprenticeship qualifications.

*Career guidance and awareness raising*

12. Career guidance, mentoring and learner support should be provided before and during the apprenticeship to ensure successful outcomes, to prevent and reduce drop-outs as well as support those learners to reengage into relevant education and training pathways. Apprenticeships should be promoted as an attractive learning pathway through widely targeted awareness-raising activities.

*Transparency*

13. The transparency of, and access to apprenticeship offers within and between Member States should be ensured, including with the support of public and private employment services as well as other relevant bodies, and, when appropriate, by using Union tools such as EURES as provided for in the EURES regulation.

*Quality assurance and tracking of apprentices*

14. Quality assurance approaches should be in place taking into account the European Quality Assurance Reference Framework for Vocational Education and Training (EQAVET)<sup>(2)</sup>, including a process allowing a valid and reliable assessment of the learning outcomes. The tracking of employment and career progression of the apprentices should be pursued, in accordance with national and European legislation on data protection.

**Implementation at national level**

Within the scope of this Recommendation, for its implementation Member States should:

15. Promote the active involvement of social partners in the design, governance and implementation of apprenticeship schemes, in line with national industrial relations systems and education and training practices;
16. Ensure equal access, promote gender balance and tackle discrimination in apprenticeship schemes;
17. Include the relevant implementing measures in the National Reform Programmes under the European Semester;
18. Take into account this framework when making use of European Union funds and instruments supporting apprenticeships.

The Commission should provide the necessary support, including through the following actions:

**Support services**

19. Developing a set of support services for knowledge sharing, networking and mutual learning to assist Member States and relevant stakeholders to implement apprenticeship schemes in line with this Framework. This should include the further training needs of VET teachers and trainers regarding digital innovations in apprenticeships.

**Awareness-raising**

20. Promoting the excellence and attractiveness of apprenticeships, as well as a positive image among young people, their families and employers, through awareness raising campaigns such as the European Vocational Skills Week;

<sup>(1)</sup> OJ C 189, 15.6.2017, p. 15.

<sup>(2)</sup> OJ C 155, 8.7.2009, p. 1.

**Funding**

21. Supporting the implementation of this Recommendation through relevant Union funding, in accordance with the relevant legal framework;

**Follow-up**

22. Monitoring the implementation of this Recommendation with the support of the tripartite Advisory Committee on Vocational Training, building on the existing monitoring instruments used in the framework of the European Semester;
  23. Reporting to the Council on the implementation of the Framework within three years from the date of its adoption.
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