Getting Skills Right

Training in Enterprises

NEW EVIDENCE FROM 100 CASE STUDIES

OECD

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BETTER POLICIES FOR BETTER LIVES

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Please cite this publication as:
OECD (2021), *Training in Enterprises: New Evidence from 100 Case Studies*, Getting Skills Right, OECD Publishing, Paris, *https://doi.org/10.1787/7d63d210-en*.

ISBN 978-92-64-57875-3 (print)
ISBN 978-92-64-81927-6 (pdf)

Getting Skills Right
ISSN 2520-6117 (print)
ISSN 2520-6125 (online)

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Foreword

The world of work is changing rapidly. Digitalisation, globalisation, demographic change, the transition to a low-carbon economy and the fall-out from the COVID-19 pandemic are having a profound impact on jobs and the skills required to perform them. The extent to which individuals, companies and whole economies can reap the benefits of these changes will depend on the readiness of adult learning systems to help people develop and maintain relevant skills over their working careers.

Enterprises are a key provider of education and training for adults across OECD countries. While much has been written about firm-provided training, there remains a lack of detailed qualitative evidence on why, how and for whom enterprises provide learning opportunities. This study aims to complement existing large-scale quantitative enterprise surveys on employee training, such as the European Continuing Vocational Training Survey and the European Company Survey. It sheds light on the issue of enterprise training with new qualitative evidence from 100 case studies of enterprises in Austria, Estonia, France, Ireland and Italy. In opening the black box of training provision in enterprises, going beyond quantifying whether training is provided or not, it supports the design and implementation of effective policy interventions that aid enterprises in providing more and better training for their employees.

The authors of this report are Julie Lassébie, Anja Meierkord (project lead) and Stefano Piano from the Skills and Employability Division of the Directorate for Employment, Labour and Social Affairs. The work was carried out under the supervision of Glenda Quintini (Skills Team Manager) and Mark Keese (Head of the Skills and Employability Division). It benefited from helpful comments by Stefano Scarpetta (Director for Employment, Labour and Social Affairs) and members of the Skills and Collective Bargaining Teams at the OECD (Chloé Touzet, Luca Marcolin, Annelore Verhagen).

Around 300 managers, HR professionals and employees participated in these case studies. The research team is truly grateful for their time and insights. This report would not have been possible without them. The enterprise case studies were conducted by in-country experts, under the leadership of Karin Petzlberger for Austria (Austrian Institute for SME Research), Meeli Murasov for Estonia (Praxis Centre for Policy Studies), Patrick Werquin for France (Initial(es)), Seamus Carlin for Ireland (Cruinn Advisory) and Flavia Pesce for Italy (Istituto per la Ricerca Sociale).

The report benefited greatly from discussions with the European Commission (Alison Crabb, Ivan Ebejer and Mantas Sekmokas, DG EMPL) and the academic advisory group for the study, which included Salima Benhamou (France Strategie), Christina Enrichlmair (Austrian Institute for SME Research), Edward Lorenz (University of Nice) and Gijs van Houten (Eurofound). It also benefited from the helpful comments of a wider group of experts on first findings of the report during a workshop in May 2021. The European Commission and delegates of the OECD Employment, Labour and Social Affairs Committee (ELSAC) provided written comments.

This report is published under the responsibility of the Secretary General of the OECD, with the financial assistance of the European Commission (Grant VS/2020/0352). The views expressed in this report should neither be taken to reflect the official position of OECD member countries nor those of the European Commission.

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Acronyms and abbreviations

AES	Adult Education Survey
AI	Artificial Intelligence
AUT	Austria
CEO	Chief Executive Officer
COVID-19	Coronavirus disease 2019
CSE	Social and Economic Committee (France)
CVT	Continuing Vocational Training
CVTS	Continuing Vocational Training Survey
ECS	European Company Survey
ESS	Employer Skills Survey (ESS)
EST	Estonia
EU	European Union
EUR	Euro
FRA	France
HR	Human resources
IC	Information and Communication
IRE	Ireland
IT	Information technology
ITA	Italy
KIS	Knowledge-Intensive Service
LFS	Labour Force Survey
LKIS	Low-Knowledge Intensive Services
OECD	Organisation for Economic Co-operation and Development
PIAAC	Survey of Adult Skills
SME	Small and medium enterprises
TNA	Training needs analysis/ assessment
QCL	Qualifications, certificates and licenses
US	United States of America

Executive summary

The COVID-19 pandemic has disrupted labour markets in the OECD and beyond. Labour markets were already undergoing adjustments due to technological change, globalisation, population ageing and the transition to a low-carbon economy. The COVID-crisis has accelerated some of these structural changes. Providing reskilling and upskilling opportunities is more crucial than ever to enable individuals, enterprises and societies as a whole to harness the benefits of these transformations.

Enterprises are the main provider of reskilling and upskilling opportunities for adults. They invest in learning opportunities because they believe that skilling their workforce helps them adapt to technological change, integrate new recruits, ensure health and safety of staff and stay competitive. Yet, not all firms have the capacity and capabilities to organise effective learning opportunities for their employees.

The COVID-19 pandemic has posed additional training challenges for enterprises, notably by making it difficult to deliver in-person training as well as by changing the way many employees work. Fewer employees participated in training programmes during the pandemic, according to data from the European Labour Force Survey. In 2020, 9.5% of employed adults in the EU-27 had taken part in education and training in the previous 4 weeks, down from 11.4% in 2019. This was the first decline in a decade, bringing participation rates down to 2012 levels. Evidence from the case studies suggest that while many large enterprises were able to upscale their pre-existing online training programmes, smaller firms struggled to provide training, because they lacked these resources.

Policy-makers lack a detailed picture of how training in enterprises takes place. This report opens the black box of training and informal learning in enterprises, by providing in-depth insights on: i) what training and learning opportunities enterprises provide; ii) why they provide training (or not); and iii) how they make decisions about training. It presents new evidence from 100 qualitative cases studies in five countries: Austria, Estonia, France, Ireland and Italy. In doing so, it assists governments and social partners in designing and implementing better policies in support of training in enterprises.

What learning opportunities do enterprises provide?

Training in enterprises has well-defined content, degrees of formalisation and modes of delivery. Evidence from the case studies suggests that enterprises offer six types of content: technical, practical or job-related skills; health, safety and security; soft skills; induction of new employees; IT skills and foreign languages. These opportunities differ in their degree of formalisation. New evidence from the case studies shows that the adoption of certified training is driven by regulatory pressures and primarily relates to technical, practical or job-related skills and health, safety and security training.

Concerning the mode of learning, the case studies show that, before the outbreak of the pandemic, **online training was not widespread** and large and/or multinational enterprises were disproportionately more likely to rely on online delivery than medium-sized firms were. The pandemic proved to be an accelerator of existing trends in online training, rather than a catalyst for change. Large enterprises were able to

upscale online delivery quickly, but remain lukewarm about further expanding online delivery, whereas medium-sized firms struggled during the crisis and are not planning to upscale online provision as economies reopen.

Informal learning is, by definition, not institutionalised and difficult to measure. Existing evidence suggests that informal learning accounts for more than 70% of total learning time in enterprises. The case studies show that enterprises offer a wide range of informal learning opportunities across three main dimensions: learning by doing, e.g. by working across different projects or through structured job rotation systems; learning from others, e.g. through mentoring schemes or exchanges with colleagues; and keeping up to date with new products and services, e.g. through reading newsletters, attending trade fairs, or conferences.

Why do enterprises train (or why not)?

Firm-provided training has many important benefits, both for the firm and for its employees. For enterprises, training leads to increases in productivity and profitability. For the employee, it translates into higher wages and better career prospects. However, new evidence from the case studies shows that the main motivation for firms to train their employees is not directly related to firm performance but is to comply with legal requirements regarding health, safety and security training. Reasons more directly related to firm performance, such as the need to stay competitive or to engage employees, are only secondary drivers of the provision of training.

At the same time, enterprises face a number of constraints limiting the amount of training they can offer. New evidence from the case studies shows that a lack of time by employees and management functions appears to be a key impediment to training provision, followed by training costs to employers and negative attitudes of employees and managers. Lack of time is particularly problematic for employees directly involved in manufacturing, which often takes place as shift-work. Office workers are considered to have more flexible schedules that can more easily accommodate training. This also results in an unbalanced distribution of training in favour of office workers. Contrary to the literature, poaching concerns are rarely cited as obstacle to training.

How do enterprises make decisions about training?

Enterprises need effective structures to design, deliver and evaluate training to maximise its impact on employees, enterprises and societies as a whole. The case studies show that firms that appoint a dedicated training manager/specialist provide more training. Evidence from the case studies also provides insights into employees' involvement in decision-making on training. Where they have a say, employees influence decisions directly, rather than through employee representatives, although there are cross-country differences.

Training needs assessment is a key tool for enterprises to understand their human resource requirements and develop plans to meet these through training. New evidence from the case studies shows that most firms do assess their training needs. In doing so, they use a variety of methods and approaches, which are reactive in most firms, e.g. based on employee feedback, rather than strategic, e.g. based on market analysis or industry foresight. **Enterprises need to decide whether to deliver training internally or through external providers,** after assessing their training needs**.** This choice is driven by the availability of expertise in-house, costs and the need to customise training, according to the case studies. **Understanding how individuals gain access to training is crucial**, given the large inequalities observed in training participation among employees. New evidence from the case studies shows that line-managers are often gatekeepers to training. Some firms with a high-skilled workforce are empowering employees through individual training budgets and self-directed online training.

Enterprises use only basic methods to assess the outcomes of training, despite spending significant amounts of time and resources on its delivery. New evidence from the case studies suggests that most enterprises rely on employee surveys or observation at work to assess the results of training.

Why and how should enterprises be supported?

Understanding why and how enterprises should be supported in their training provision is crucial for designing and implementing effective and efficient training policies. Two key arguments justify policy intervention by governments or social partners in this area. Firstly, policy intervention can be necessary to reduce attitudinal, informational, time or financial barriers faced by small and medium enterprises or to solve co-ordination problems across all firms. These interventions can maximise firm performance in view of achieving greater productivity growth, higher wages and higher levels of well-being, ultimately leading to higher economic growth. Secondly, policy intervention can unlock the positive externalities of training and improve equity of labour markets, realising the wider economic and social benefits of training.

Based on new insights from the case studies, **this report suggests a 'tool-box' for policy makers to support enterprises that includes five main types of instruments**, namely: i) information and guidance for enterprises; ii) capacity building of enterprises; iii) financial incentives to steer training provision; iv) the direct provision of training; and v) regulatory instruments such as laws and agreements. Governments and social partners generally rely on a mix of instruments to reach their desired objectives.

1 About the study

This introductory chapter starts by presenting the aims and objectives of the study, discussing the importance of employer-provided training, and briefly reviewing existing literature on the topic. It then introduces the research questions covered in the study, and the research methodology adopted. It provides an overview of participation rates in employer-provided training across countries and more specifically in the countries covered in the study, and discusses preliminary evidence on the impact of the COVID-19 crisis on the amount of training offered by companies. Finally, it describes the topics covered in the subsequent chapters.

Aims and objectives of this study

The importance of investing in upskilling and reskilling systems for adults has been at the forefront of the policy agenda for years. The issue is becoming even more urgent as economies start to plan for the recovery after the crisis brought about the COVID-19 pandemic. The pandemic and related confinement measures have affected sectors and firms differently, and some economic restructuring can be expected in the near future. These changes will come with considerable re-skilling needs. In particular, digital skills are becoming more important than ever for individuals to adapt to new working arrangements. Soft skills are also increasingly required to work remotely and deal with continuous changes in job tasks. If the necessary investments in these skills are not made in a timely manner, we can expect that gaps between individuals and between companies will widen.

Investing in skills in enterprises can be a particularly efficient channel for upskilling and reskilling individuals. Indeed, firms are the place where most adult learning, both training and informal learning, happens. Developing training and learning within enterprises helps channel training towards identified and emerging skill needs, yielding benefits for society as a whole. Yet, not all firms are able to foster the development of their employees in an effective way. It is therefore crucial to look inside the black box of training in enterprises to understand what works.

There exists a wide literature on firm-provided training. Since the seminal work of Becker (1975[1]), researchers have analysed the conditions under which enterprises provide training for general or firm-specific skills (Acemoglu and Pischke, 1999[2]; Acemoglu and Pischke, 1999[3]; Stevens, 1994[4]), the mode of delivery of training (classroom setting *vs.* on the job, in person or online), and the advantages and drawbacks of each option (Ford, Baldwin and Prasad, 2018[5]; Grossman and Salas, 2011[6]; Kraiger and Cavanagh, 2014[7]).

Existing research also studies the various benefits of firm-provided training, both for the enterprise (Brunello and De Paola, 2008[8]; Konings and Vanormelingen, 2015[9]) and its employees (Haelermans and Borghans, 2012[10]; Kluve, 2010[11]; Picchio and van Ours, 2013[12]). It also highlights that firms face several obstacles hindering training provision, both stemming from external factors and internal constraints (Brunello and Wruuck, 2020[13]). However, it is not entirely clear whether enterprises are fully aware of training benefits and the exact reasons why firms provide training or not, and to what extent, are not yet fully understood. Furthermore, while the literature is in general remarkably clear on the types of employees that tend to train more than others (for instance, younger, higher skilled, and higher wage employees receive more training, as it is also the case for employees under a permanent contract and in managerial positions), it remains unclear why this is the case (Dostie, 2020[14]).

Besides training, enterprises can adopt two other strategies to address their skill needs: they can either hire individuals with specific competences, or outsource the activity for which there is a skill gap. The choice between training and these other options seems driven by cost-benefits considerations (Blatter et al., 2015[15]; Mühlemann, 2016[16]) but evidence on the reasons why firms choose one option over the others remains scarce.

Another strand of the literature analyses how training decisions are made within enterprises and who makes these decisions. The literature provides limited evidence that the presence of dedicated management functions, such as human resource managers responsible for the planning, implementation and evaluation of training, substantially improves the training offer in enterprises. However, the lack thereof is often made responsible for the absence of strategic attention paid to training in SMEs (Cardon and Valentin, 2017[17]). Evidence on the effect of employee voice on training provision is also scant.

The decision-making process on training in enterprises itself revolves around five steps: assessing training needs, developing training plans, deciding on if training should be delivered internally or externally, selecting individuals into training, and evaluating the outcomes of training. In general, while the literature discusses theoretical considerations on these decisions, e.g. there is ample literature on how enterprises

should assess training needs, empirical literature is pretty scarce, e.g. there is little evidence how training-needs evaluation takes place in practice (Ferreira, Da Silva Abbad and Mourao, 2015[18]; Salas et al., 2012[19]).

Finally, the economic literature has also placed strong emphasis on the importance of workplace learning (de Grip, 2015[20]). Recent work shows that informal learning is actually more important than other forms of learning in terms of incidence and intensity, and is associated with important benefits for individuals and enterprises (Fialho, Quintini and Vandeweyer, 2019[21]). Yet, measuring informal learning has proven difficult, and it remains unclear what informal learning opportunities enterprises offer and what drives the adoption of these opportunities.

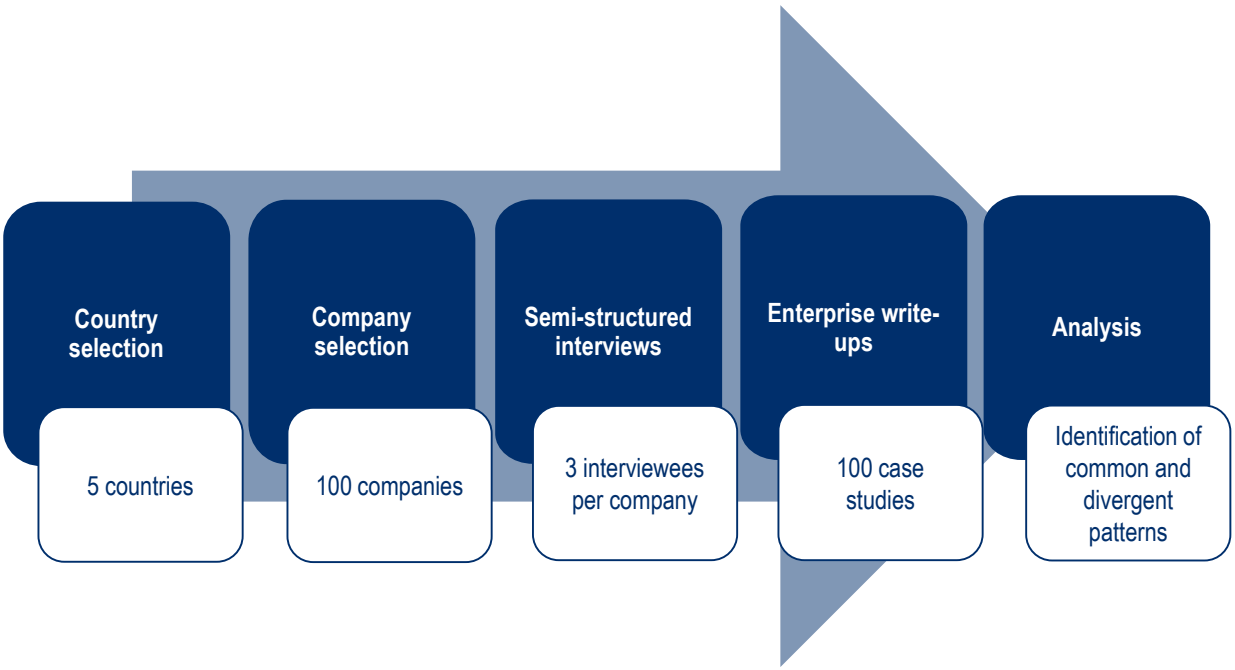
This report aims at advancing knowledge on the different literature gaps. It investigates what, why and how enterprises provide training. Understanding **what learning opportunities enterprises offer** is crucial to assess whether enterprises are targeting the skills, knowledge and abilities that are needed to prepare individuals for the future of work, and to clarify whether enterprises are delivering training effectively. This can provide useful information to better tailor support measures, and to understand to what extent learning in enterprises should be stirred in a different direction or complemented by actions outside the firm. Analysing the reasons **why firms provide training**, and whether these reasons differ for different groups of employees, is also of paramount importance. It will advance knowledge on whether enterprises are aware of the many benefits of training and whether they offer enough training to their employees. It will also help determine the role of public policies to foster training in enterprises and to reduce differences between groups. Finally, studying **how enterprises make decisions about training** is important to assess whether firms need support to plan and organise training, and, if so, to design appropriate measures. More generally, the what/why/how analysis can provide insights on potential new areas where intervention is needed. This study covers the following research questions:

- What kind of training do enterprises provide and how do they provide it?
- How do enterprises create opportunities for informal learning?
- Why do enterprises provide training?
- What are reasons for under-provision of training by enterprises?
- How do enterprises make decisions about training provision?
- What is the influence of enterprise characteristics, management and economic context on if, why, how and what training is provided?

Research methodology

To answer the research questions listed above, this study adopts a qualitative approach. This approach allows for an in-depth analysis of the issues at hand. It aims at complementing existing quantitative studies on the topics, by providing new insights on what happens within enterprises. The qualitative data collected for this project comes from semi-structured interviews in 100 firms in five countries: Austria, Estonia, France, Ireland, and Italy. Twenty enterprises[1] were sampled in each country. The different steps of the research methodology are shown in Figure 1.1 and detailed below.

Figure 1.1. Research process used for the study



Selection of countries

The study focuses on five countries: Austria, Estonia, France, Ireland, and Italy. These countries were chosen to represent a diverse set of adult learning systems and different approaches to employer-provided training. A discussion of how these countries differ regarding participation in training provided by enterprises is provided in the next section, using data from the Continuing Vocational Training Survey (CVTS).

Selection of enterprises

Enterprises were selected in the study following a quota sampling strategy. Quota sampling aimed to secure the diversity of the sample and, by extension, the generalisability of study findings. In each country, the sample of enterprises selected had to meet criteria relating to firms size, sectors of activity and location of the firm:

- The extent of training provision to employees varies considerably by **company size** (OECD, 2019[22]). This study focuses on medium (50-249 employees) and large enterprises (250 employees or more). Small enterprises (less than 50 employees) are excluded from the study, as they form a sub-group with specific training behaviours and strategies, which has been studied in-depth in a recent study on behalf of the European Commission (CEPS, 2020[23]). The aim was to sample 10 medium-sized and 10 large enterprises in each country.
- **Enterprises' location** likely has an impact on training provision, as the presence of education and training providers will vary between different regions and between rural and urban areas. The study aimed to sample 10 enterprises based in cities, towns or suburbs and 10 based in rural areas in each country. An effort was also made to ensure that the 10 enterprises selected in urban areas were not all clustered in the wider capital region (e.g. Tallinn in Estonia), but also sampled from other urban centres (e.g. Tartu in Estonia).
- Training practices of enterprises also vary vastly between different **sectors** of the economy and between more or less technology-oriented sub-sectors within them. To include enterprises in

sufficiently diverse sectors of the economy, the study intended to sample 10 enterprises in the manufacturing sector and 10 enterprises in the service sector for each country. Differentiating the selection by technology intensity, enterprises in the manufacturing sector meant to include five enterprises in high or medium-high technology sub-sectors (e.g. manufacturing of computers, pharmaceuticals or motor vehicles) and five enterprises in medium-low or low technology sub-sectors (e.g. manufacturing of plastic products, food products or textiles). Differentiating the selection by knowledge-intensity, enterprises in the service sector had to include five enterprises in knowledge-intensive service sub-sectors (e.g. financial and insurance activities, scientific research and development or telecommunications) and five enterprises in less knowledge-intensive service sub-sectors (e.g. wholesale and retail trade, accommodation and food services, or warehousing).

As evidenced in Table 1.1, the final sample shows some minor deviations from the quota requirements, due to difficulties in engaging appropriate enterprises in some countries. Twenty enterprises were selected in each of the five countries. Medium-sized enterprises are slightly over-represented compared to the target, as are firms located in cities, towns or suburbs, firms operating in manufacturing sub-sectors considered to be high or medium-high technology, and those in service sub-sectors considered knowledge-intensive.

Table 1.1. Final sample: Enterprise characteristics related to sampling quotas

Variable	Value	Number of enterprises in the sample
Country	Austria	20
	Estonia	20
	France	20
	Ireland	20
	Italy	20
Size	Medium (50-249 employees)	55
	Large (250+ employees)	45
Location	Urban	56
	Rural	44
Sector	Manufacturing, high-technology	26
	Manufacturing, low-technology	23
	Services, knowledge-intensive	27
	Services, less knowledge-intensive	24

Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

As shown in Table 1.2 the final sample of enterprises includes both **single and multi-establishment** enterprises. In the case of multi-establishment enterprises (69 firms in the sample), a decision had to be made if interviews should be conducted with staff at the head-office (this was the case for 37 enterprises) or staff at one specific establishment (in 32 enterprises). For each firm, this decision was based on where HR and training decisions took place the majority of the time. All interviews for one enterprise were conducted at the same location. It can also be noted that 26 companies in the sample are part of a larger, global group as they are a **subsidiary of large or multinational enterprise.**

The most popular **competitiveness strategy** adopted by firms in the sample is to focus on the quality of their products or services (42 enterprises). Other firms in the sample chose to orient their strategy on customisation (in 22 cases), innovation (new product development, in 23 cases), or, to a much lower extent on lower price (only 4 cases). Some enterprises employ mainly a highly educated or medium educated workforce (corresponding to vocational education workforce) (in respectively 19 and 22 cases) while few employ mainly low educated individuals. The remainder (38 enterprises) have employees at all qualification

levels. Finally, in terms of the degree of autonomy of their workforce, approximately a quarter of firms in the sample have a majority of employees with full autonomy over their work, while for half of the firms this only applies to a minority; other cases are more marginal in the sample.

Table 1.2. Other notable enterprise characteristics

Variable	Value	Number of enterprises in the sample
Multi-establishment enterprise	Yes, interviews conducted at the headquarters	37
	Yes, interviews held at one establishment	32
	No	31
Subsidiary of large or multinational enterprise	Yes	26
	No	74
Product market strategy	Better quality	42
	Customisation	22
	New product development	23
	Lower price	4
	Missing value	9
Education level of the workforce	Mainly high (university qualifications)	19
	Mainly medium (vocational qualifications)	22
	Mainly low (low or no qualifications)	5
	Varying	38
	Missing value	16
Degree of autonomy of the workforce	Everyone has full autonomy	4
	Majority has full autonomy	24
	Around half have full autonomy	4
	Minority has full autonomy	50
	No one has full autonomy	4
	Missing value	12

Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

Selection of interviewees

In each enterprise selected for the study, interviews were conducted with three different individuals: a management representative, a human resources representative, and an employee representative. Management representatives included individuals with the title of Chief Executive Officer, Chief Operating Officer, (Vice) President, Director or General Manager, amongst others. In the case of owner-operated businesses, the business owner was frequently interviewed. The management representative answered questions about the enterprise, its strategic orientations and general Human Resources practices. The representative of the enterprise's human resources team was typically an HR representative responsible for training and development in the enterprise, when it existed. In cases where no HR function was in place, for example in smaller companies, the interview was conducted with the individual who most frequently dealt with HR related questions from the management team.

The employee representative was an individual who had been formally chosen by other employees to represent them in negotiations or consultations with employers. Exact title and function of these representatives varied among countries, but they included members of works councils, staff councils, union representatives or employee delegates. In cases where no formal employee representatives existed, the interview was organised with an employee in a leadership role but who did not belong to the company's management team (e.g. a foreman or shop floor manager).

The three different stakeholders were interviewed independently of each other in a one-to-one setting. When the same person exercised management and HR functions within a company (e.g. in smaller enterprises), one interview was organised with this individual, combining questions for both target groups.

Interviews followed a semi-structured format and were conducted using topic guides that included a series of open-ended questions. Three different topic guides were made available for interviews with the three representatives. In companies, where management and HR representatives were equivalent, questions from both topic guides were asked. Given the necessity to maintain physical distancing and the travel restrictions related to the COVID-19 pandemic, interviews took place virtually as video conference or via phone. Interviews lasted between one hour and one hour and a half and were conducted in the local language of the country.

The briefing note for interviewers is provided in Annex C. Topic guides for the semi-structured interviews are provided in Annex D-G.

Preparation of enterprise write-ups

Comprehensive notes were taken during the interviews and formed the basis of the data entered into recording templates. Two types of standardised recording templates were completed, in English language:

- One Excel form to codify main firm characteristics.
- One Word document for each enterprise, where a synthesised account of all three interviews was provided. The template was organised thematically and completed based on the extensive notes taken during the interviews. Where diverging views existed between different interviewees, this was also highlighted in the template.

Analysis

Comparative analysis was then conducted to answer the key research questions listed above, following an analytical framework validated by experts. The aim of the analysis was to draw patterns of commonality and divergence of practices between enterprises with different characteristics.

Context

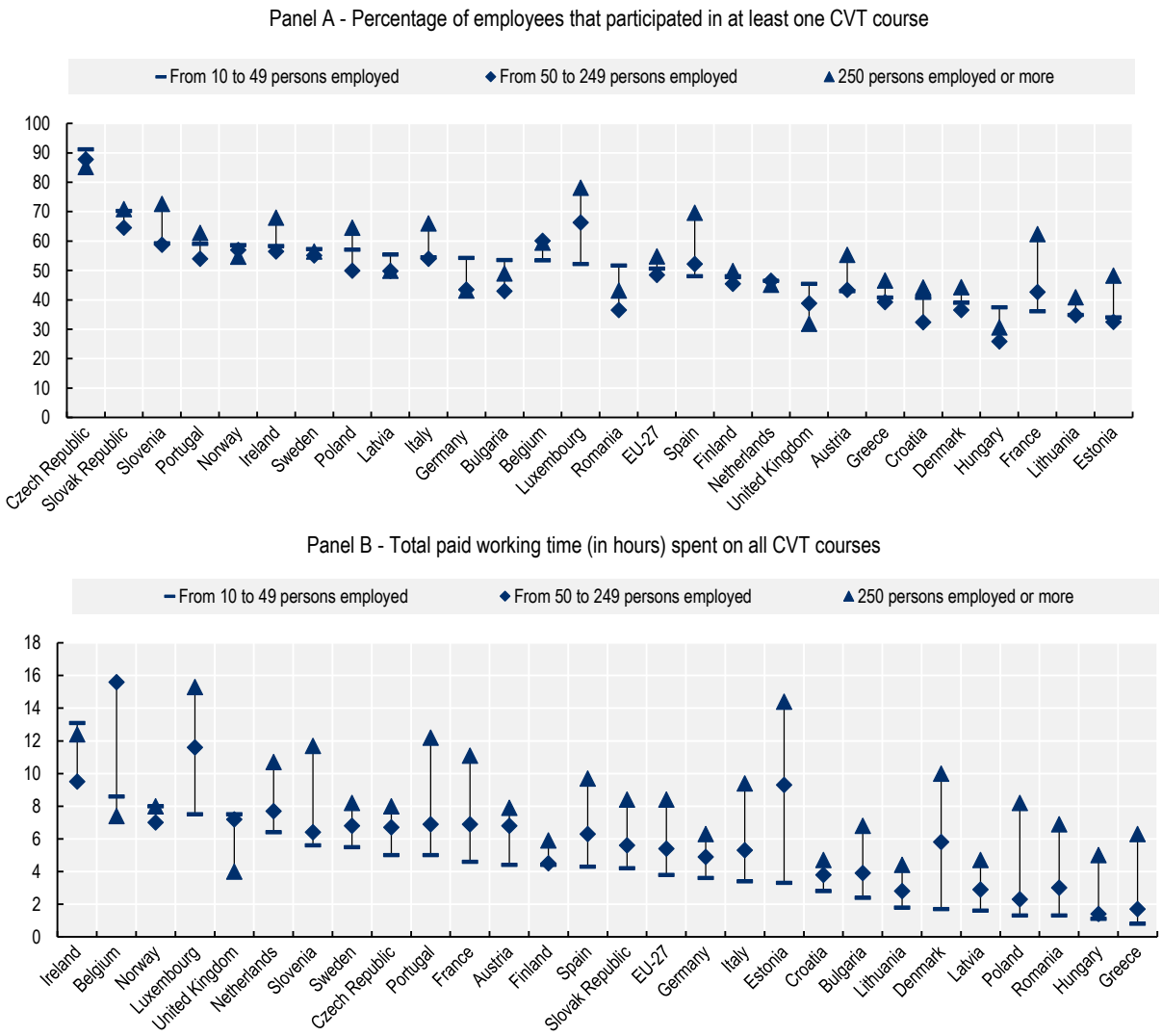
Countries selected for the study have different adult learning systems, and, within those, the degree of engagement of employers varies. This section provides evidence on the extent of training offered by enterprises, using data from the Continuing Vocational Training Survey, and discusses differences across the five countries covered in this study. It also presents preliminary evidence on the impact of the COVID-19 pandemic on the amount of training provided by enterprises.

Extent of training offered by enterprises

Data from the Continuing Vocational Training Survey (CVTS) helps shed light on the amount of training firms offer to their employees, and how it differs across countries and firm size. Regarding the share of workers, participating in CVT courses (Figure 1.2, Panel A), two broad groups of countries can be distinguished: a first group where this share is between 50 and 70% and hence above the EU-27 average, and a group where it is below the EU-27 average, between 30 and 50%. Two countries covered in this study, namely Ireland and Italy, show participation rates higher than EU-27 average, while Austria, France, and Estonia perform relatively less well on this indicator. Differences between differently sized firms are particularly high in France, but also substantial in other countries covered in the study.

There is much more heterogeneity regarding hours spent in training (Figure 1.2, Panel B), both across countries and across firm size. Furthermore, there is no strong relationship between the share of workers participating in CVT and hours spent in training. Some countries like Ireland rank well both in terms of participants and hours, while in some other countries firms seem to trade-off between the two (as seems to be the case in France).

Figure 1.2. Amount of training provided by enterprises in the CVTS



Source: Eurostat, CVTS 2015, [trng_cvt_13s, trng_cvt_21s].

Impact of the COVID-19 crisis on the amount of training provided by enterprises

The impact of the COVID-19 crisis on firm-provided training is not well understood at the time of publication. Research on the topic is still nascent, and cross-country data have not been thoroughly analysed. This subsection therefore starts by revisiting theoretical arguments and empirical evidence from previous crises. It then presents new data from the European Union Labour Force Survey to shed light on the aggregate impact of the crisis on firm-provided training. These results are complemented with new qualitative evidence from the case studies to get a finer picture of firms' reactions to the crisis.

Existing literature on the general impact of economic crises on firm-provided training

In general, the effect of economic crises on employer-provided training is ambiguous, as theoretical arguments go both ways. On the one hand, reductions in demand mean that the opportunity cost of training decrease. The risk of poaching is also reduced because of poorer labour market prospects for employees. Retaining employees instead of dismissing them saves on adjustment costs that would be incurred later during the economic recovery, and training is a way to keep employees productive. On the other hand, decreased demand also implies that firms' abilities to finance training is diminished, especially in contexts of liquidity constraints and credit-market imperfections. Firms may choose to invest their limited resources in activities that generate short-term benefits, and this is usually not the case of investments in training. This is especially the case in a slack labour market, where alternatives to training, such as hiring the necessary skills, become less costly and are hence favoured by enterprises.

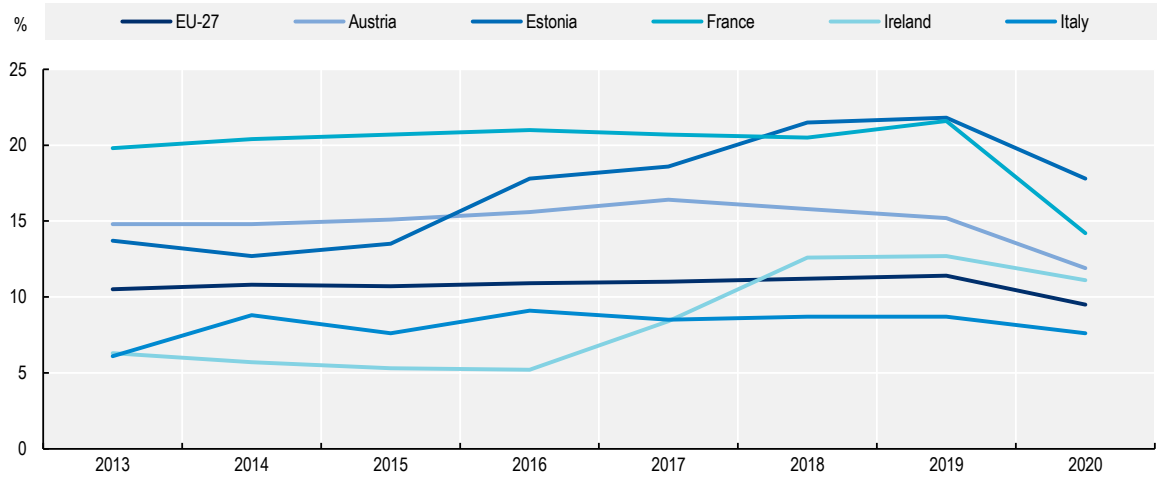
Unsurprisingly, the early empirical evidence on this topic was rather mixed. Majumdar (2007[24]), using US data for the period 1979 to 1988, finds that the probability of receiving company training decreases when the local unemployment rate increases, pointing to pro-cyclical training. Méndez and Sepúlveda (2012[25]) also highlight a pro-cyclical pattern for several training types (training related to promotions, training related to technology adoption, regular training programmes, training needed as workers begin a new job), especially when financed by employers as opposed by individuals themselves. On the contrary, using data from 15 European countries, Bassanini et al. (2005[26]) suggest a positive correlation between training activities of establishments and unemployment rates in different European countries, hence a counter-cyclicality of training investments.

More recent studies have analysed the effects of the Great Recession on establishments' training activities. In general, these studies provide evidence for a negative impact of the crisis on training activities. For instance Bellmann, Gerner and Leber (2014[27]) show that all German establishments reduced their training activities at the peak of the crisis in 2009 and that establishments that have been directly affected by the crisis reduced their training efforts to a much larger extent than other establishments. Dietz and Zwick (2019[28]), using the German linked employer – employee panel dataset, find a direct negative effect of the crisis on individual training activities, lasting also until after the recession. Furthermore, they show that the recession had a stronger effect for employees in unskilled jobs than for employees in skilled jobs. Mason and Bishop (2014[29]), using longitudinal data from the Employer Skills Updating Surveys in the United Kingdom, find that the downturn has contributed to reductions in training, especially for off-the-job training and for skilled and highly skilled employees.

Yet, the COVID-19 crisis is very peculiar and differs from previous recessions along several dimensions. First, it has affected sectors differently: some have been deeply affected by containment measures while others have actually benefited from them. Evidence from online job postings show that demand for workers in 'front-line' sectors, or in those involved in the management of the COVID-19 pandemic (health care and other "essential" sectors such as retail trade), was relatively strong while demand in sectors that had to shut down due to restrictions (e.g. leisure and hospitality) plummeted. Furthermore, the rate of recovery also varies across sectors. Indeed, in December 2020, while labour demand in accommodation and food services was 45% lower than the pre-pandemic level, in transport and storage services demand was 30% higher than in January 2020. Second, as physical access to workplaces was significantly reduced for most employees over extended periods, in-person training had to be halted and replaced with online provision, causing significant delays and difficulties. This was not the case during previous crises, when employees had no physical constraint to access training. Third, numerous governments have put in place measures to incentivise firms to retain their employees; these measures were in some cases compatible with employees' participation. It is therefore not obvious whether and how the COVID-19 crisis lead to changes in firm-provided training and more research in this area is warranted.

European Union Labour Force Survey data provide some preliminary insights on firms' training offer during the crisis. Figure 1.3 shows the evolution of the participation rate in education and training between 2013 and 2020. The rate refers to participation in training in the four weeks preceding the survey for employed individuals aged between 25 and 64 years old. In all five countries covered in this study, and in the EU-27 on average, participation in education and training activities shows a marked decline in 2020 compared to previous years. On average, participation rates in 2020 were lower by 2 percentage points. The decrease is smaller in Italy (1 percentage point) and larger in France (7 percentage points). Reasons behind these differences deserve further attention in future research.

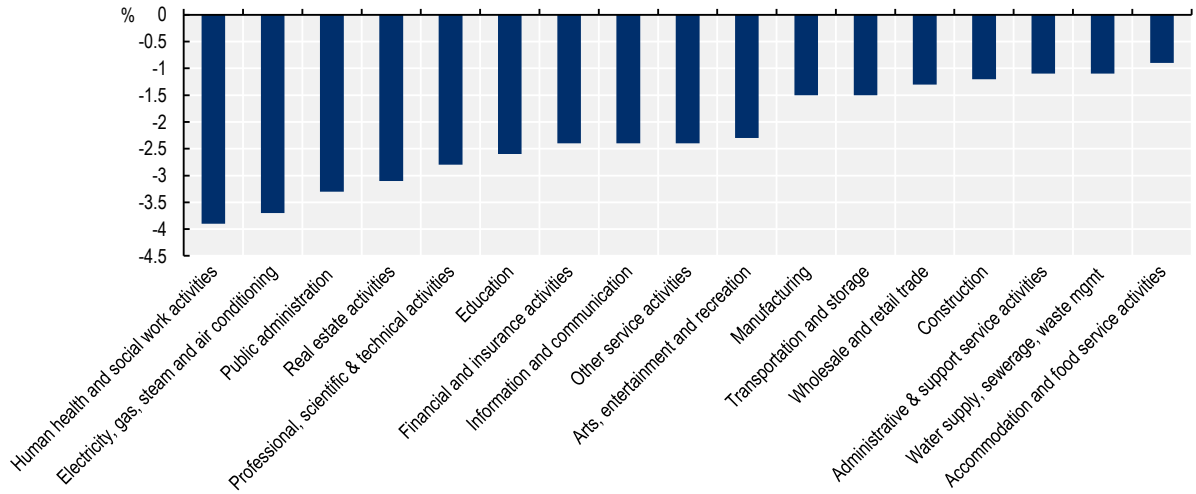
Figure 1.3. Participation rate in education and training between 2013 and 2020



Note: Participation rate in education and training in the last 4 weeks, employed persons, from 25 to 64 years.
Source: European Union Labour Force Survey.

Figure 1.4 shows the difference in participation rates between 2019 and 2020 for individuals employed in different sectors. The decline is more pronounced in frontline sectors, particularly health care, and less pronounced in sectors that faced a decrease in activity. This seems to suggest that sectors that were under increased productivity pressures during the COVID-19 crisis invested less time in training. The variation between sectors may also be related to the extent to which different firms and sectors were ready to provide training online as opposed as face-to-face.

Figure 1.4. Change in participation rate in education and training between 2019 and 2020, EU-27



Note: Participation rate in education and training in the last 4 weeks, employed persons, from 25 to 64 years.
Source: European Union Labour Force Survey.

New qualitative evidence on the impact of the crisis on the amount of firm-provided training

The figures presented above are likely to mask important differences between firms. Such heterogeneity cannot be analysed using aggregate data; instead, qualitative evidence from the case studies are used to understand whether and why firms differed in their responses to the crisis. Changes in the mode of delivery, especially the shift to online training, triggered by the outbreak of the COVID-19 pandemic are discussed in more details in Chapter 2.

Regarding the **impact of the COVID-19 crisis on the amount of training provided by firms**, the vast majority of companies reported lower levels of training during the crisis. One reason for this decrease in training is related to the containment measures taken by countries during the spring of 2020: in several countries, training providers had to simply close their business. In other cases, events gathering groups of individuals were not allowed, hence it was impossible to organise training sessions with several participants. Consequently, firms had to organise most of their training offer online, or postpone it when organizing it online proved too difficult (see Chapter 2 for a discussion of the organisation of online training before, during and after the COVID-19 pandemic outbreak).

Several firms also reported that the lower profitability experienced during the crisis translates into cost-saving actions and reductions in the budget allocated to training. Some companies laid off part of their workforce, and the lower number of employees means lower training in total. The lower number of new recruits also means lower training needs, especially regarding training for induction to the enterprise. This was the case for example of two enterprises in Estonia:

> *Due to cost savings, employees are only provided with inevitable training, what is required by law or to keep abreast of changes (*e.g. *how to cope with COVID-19). Larger trainings for all employees of the company have been cancelled for both financial and health reasons*
>
> *Manufacturer, Estonia*
>
> *As the impact of the COVID-19 crisis on the company has been strong, the decisions to provide training have also been affected. For instance, the overall training need has reduced because of the redundancies in the company. The volume of introductory courses has decreased considerably because the recruitment activities*

> *have been postponed. In addition, for people remaining in the company, several training plans have been postponed because of the radically reduced volume of activities in the field of tourism.*
>
> *Transport company, Estonia*

In some sectors, activity actually increased rather than decreased, and hence workers had less time than usually to take part in training activities. This is the case in particular in essential services during the pandemic. Some firms also had to stop some of their informal learning activities (e.g. mentoring) since it was more complicated to organise them online.

However, it can be noted that several firms in the sample reported **no impact or a positive impact**. Reasons for this increase in training in some firms include the fact that employees had more time to undertake training: not only was their workload lower, but they could also save on commuting time. The fact that the schedule of online training is usually more flexible, allowing individuals to follow classes when it best suits them, was also a facilitating factor reported by enterprises in the sample. This is exemplified by two enterprises active in knowledge intensive service sectors in Austria and Ireland:

> *In the course of COVID-19, the workload is lower due to postponed customer projects but at the same time, the employees are to be retained. A reasonable alternative is to have the employees carry out further training measures, at least for part of the time. Much of this also takes place in self-study, which was increasingly accepted this year*
>
> *Medium size knowledge intensive service company, Austria*
>
> *The business has seen a notable increase in the amount of time employees are spending engaging in training through the on-line platform. This has been attributed by respondents to employees using time they would otherwise have spent commuting to/from work in other productive ways*
>
> *Large knowledge intensive service company, Ireland*

Several respondents also declared that the COVID-19 crisis **increased the necessity to provide training**. Notably, they reported the need to stay competitive, to foster innovation, to face emergencies, and to prepare for the jobs of the future was stronger now than it was before the crisis. Finally, training delivered during the crisis also served to respond to new and specific skill needs such as digital skills and tools, soft skills, communication, and management in an online setting, risk assessment and resilience, compliance with COVID-19 measures. These reasons were mentioned for instance by a metal manufacturer in Austria, and a wholesaler in Italy:

> *The pandemic itself has not changed the reasons for further training – they have remained the same. However, the reasons may even become stronger: Because if there is a market shakeout and competitors disappear, the company has the chance to grab a larger share of the market – assuming it has the better-qualified people.*
>
> *Metal manufacturer, Austria*
>
> *COVID-19 has prompted the company to develop and offer new types of training with a specific focus on soft skills and communication. This orientation was considered particularly important to help people overcome the difficult period and find ways to stay in connection and communicate effectively also in the new working set-up.*
>
> *Wholesaler, Italy*

Content of the report

The remainder of this report is organised around five chapters. Chapter 2 discusses what learning opportunities enterprises provide, and sheds light on the content of firm-provided training, the degree of formalisation of training, and the mode of delivery. It includes a discussion of online training opportunities

and how their provision changed during the outbreak of the COVID-19 pandemic. Special attention is given to informal learning opportunities, how to measure them, and how they arise.

Chapter 3 investigates why enterprises offer training to their employees. In particular, it studies the different reasons and obstacles to training provision, as reported by firms. It also considers which groups of employees train more than others and why, and what alternatives to training enterprises consider, and what factors drive their decision to choose one option over the others.

Chapter 4 looks at how enterprises make decisions about training, considering five different stages of organisational decision-making: the assessment of training needs, the development of training plans, the choice about training provider, the selection of individuals into training, and training evaluation. It also presents evidence on the different actors involved in the decision-making process.

For each topic, these three chapters start by summarizing the existing evidence, coming both from the research literature and from existing quantitative surveys (the Continuing Vocational Training Survey and the European Company Survey) and then discuss new evidence coming from the case studies.

The final chapter 5 reflects on the general findings of the study, and discusses how they can inform the design of better public policies. More specifically, it investigates whether the new findings call for public intervention, and whether policies should focus on specific enterprises or individuals. It also presents the different policy levers that exist and how to make the most of these options.

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Note

[1] In this report, the terms "firm", "enterprise" and "company" are used interchangeably.

2 What learning opportunities do enterprises provide?

Understanding what learning opportunities enterprises provide is crucial to enable policy makers and social partners to design, implement and co-ordinate effective training policies. For example, understanding if individuals in enterprises are developing the skills needed for the future of work can provide valuable information to better tailor support measures. This chapter presents existing and new evidence on what learning opportunities enterprises provide. It starts by investigating what training enterprises offer across three main dimensions: i) the content of training; ii) the degree of formalisation; iii) the mode of delivery. When discussing the mode of delivery, the chapter explores the impact of the COVID-19 pandemic on the adoption of online training. Then it examines what informal learning opportunities enterprises offer and what drives their adoption.

In Brief

What learning opportunities do enterprises provide?

Learning in enterprises happens through **training** and **informal learning**. Training has well-defined learning methods, schedule, admissions requirements and location, whereas informal learning is not institutionalised. Training opportunities can cover different **content**. The economics literature has traditionally put a strong emphasis on the distinction between firm-specific and general skills, whereas firm-level surveys, such as the Continuing Vocational Training Survey (CVTS), collect data on a wider range of training contents. New evidence from the case studies suggest that enterprises offer in fact six main types of training content. Training conveying (i) technical, practical or job-related skills is the most frequent, followed by training on (ii) health, safety and security in the workplace and (iii) soft skills. Enterprises also offer training programmes for the (iv) induction of new employees, on (v) IT skills and (vi) foreign languages, but less frequently than the top three.

Training opportunities differ in their **degree of formalisation**. The economics literature suggests that participating in training that leads to a qualification, certificate or licence can reduce hiring frictions in the job market. However, firms might be reluctant to offer certified training, due to poaching concerns, larger organisational costs and lower flexibility. New evidence from the case studies shows that the adoption of certified training is driven by regulatory pressures and primarily takes place for (i) technical, practical or job-related skills and (ii) health, safety and security.

Training can be delivered through **three main modes**: courses in-person, on-the-job or online. Data from the CVTS suggests that training mainly happens in courses rather than on-the-job. New evidence from the case studies shows that the choice of the mode of delivery depends on the type of training content. For instance, training on (iii) soft skills is overwhelmingly delivered via courses in-person, whereas training on (i) technical, practical or job-specific skills is often delivered on-the-job.

The evidence on **online training** from firm-level surveys is more limited. New evidence from the case studies suggests that, before the outbreak of the pandemic, firm size was a key driver of the adoption of online training. Large enterprises and enterprises that are part of a multinational corporation were disproportionately more likely to offer online training. This implies that medium enterprises were less prepared for a transition to online training when COVID-19 struck and often experienced significant difficulties. Although large enterprises were generally able to upscale online delivery quickly during the pandemic, they remain lukewarm about further expanding online offering in the future. This suggest that the pandemic was an accelerator of existing trends in online training, rather than a catalyst for change.

Although measuring **informal learning** is difficult, the economics and psychology literature show that it accounts for more than 70% of the total learning time in enterprises and can lead to higher productivity, higher wages and higher employee satisfaction. New evidence from the case studies suggests that enterprises offer a wide range of informal learning opportunities across three main dimensions: learning by doing, learning from others and keeping up to date with new products and services. For example, employees can learn from others by observing their work or asking for advice, but also through buddy and mentoring schemes, coaching opportunities and information sharing sessions, such as seminars to share best practices. Consistent with the psychology literature, the case studies suggest that increasing engagement in informal learning happens through the creation of a work environment where learning is encouraged and valued. The case studies show that management attitudes and some degree of institutionalisation of informal learning may be especially important to foster the creation of a learning environment.

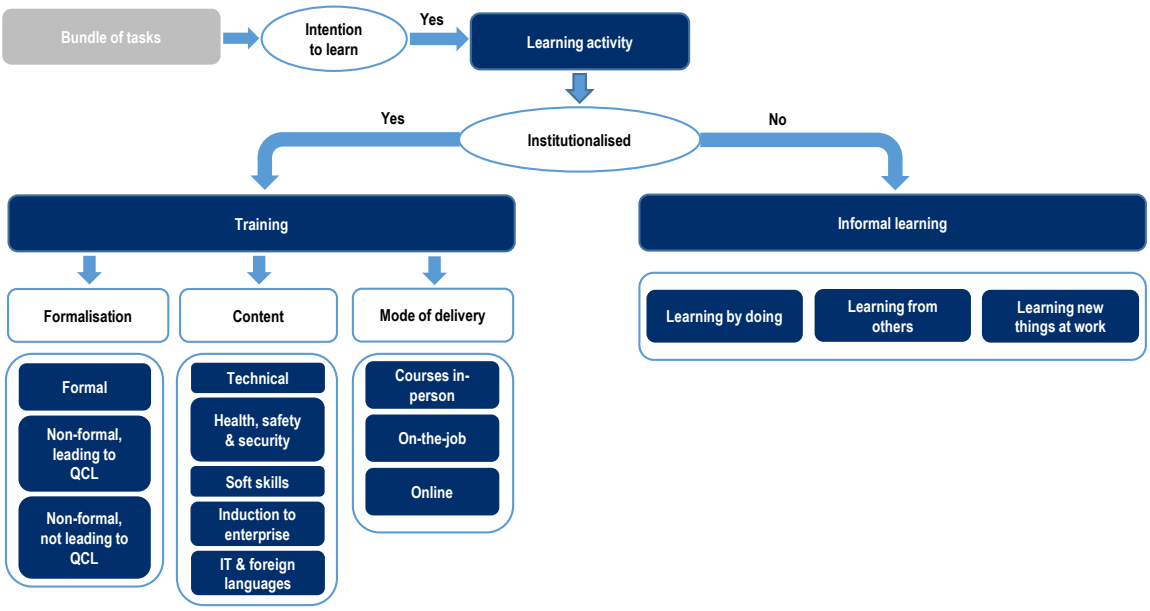
Introduction

Understanding what learning opportunities enterprises provide is crucial to enable policy makers and social partners to design, implement and co-ordinate training policies. For example, it can help assess whether enterprises are targeting the types of content that are needed to prepare individuals for the future of work, it can clarify whether enterprises are delivering training effectively and it can provide valuable information to better tailor support measures.

Fortunately, the academic and policy literature has already made substantial progress in mapping what learning opportunities enterprises provide (see Figure 2.1). Learning in workplaces is often seen as ubiquitous and inevitable. In fact, a task or a bundle of tasks in the workplace should be considered as a learning activity only if employees have an "intention to learn" while performing them (Eurostat, 2016[1]). Learning can happen either through training or informally (see Figure 2.1). Training opportunities are institutionalised, meaning that the enterprise or an external provider are responsible for setting the learning methods, the schedule, the admission requirements and the location where learning will take place. If these conditions are not fulfilled, then the learning activities are considered to be informal (Eurostat, 2016[1]).

The existing evidence also allows distinguishing between different forms of training and informal learning. Training programmes can be classified along three main dimensions (see Figure 2.1). First, training programmes differ by their degree of formalisation, i.e. whether they lead to a formal qualification, certificate or licence. Second, they can cover different content, including technical and soft skills, knowledge about security requirements in the workplace or foreign languages. Third, training programmes can be provided through different modes of delivery. Enterprises can offer training in courses in-person, on-the-job or online.

Figure 2.1. Overview of learning opportunities in enterprises



Note: Training is considered formal if it leads to a qualification recognised by national education or equivalent authorities, which lasts at least one semester, and non-formal otherwise. Non-formal training can sometimes be formalised through qualifications, certificates or licences (QCL), e.g. issued by a professional organisation. Courses in-person can be delivered in a classroom or workshop format. On-the-job training refers to periods of training using normal tools of work, either at the immediate place of work or in a work-situation. Online training refers to self-directed training (e.g. following a course online with pre-determined learning methods), interactive learning sessions (e.g. a webinar) and blended models.
Source: Elaboration based on Eurostat (2016[1]) and Fialho, Quintini and Vandeweyer (2019[2]).

Developing a comprehensive classification for informal learning is more challenging, due to its unstructured nature. Previous research by the OECD distinguishes between learning by doing, learning from others and keeping up to date with new products and services, based on the classification offered by Survey for Adult Skills (PIAAC) (see Figure 2.1). Beyond definitions, the existing evidence on the incidence and drivers of adoption of the different forms of training and informal learning remains limited. The academic literature and cross-country surveys, such as the Continuous Vocational Training Survey (CVTS), allow building a consistent picture of the content and mode of delivery of training programmes. Conversely, it remains difficult to understand what drives the adoption of different types of training content, what determines the decision to offer training leading to qualification, licences or certificates, and what informal learning opportunities enterprises offer.

This chapter presents evidence on what learning opportunities are provided by enterprises. The chapter starts by investigating the type of training enterprises offer along the three main dimensions in Figure 2.1: i) the content of training; ii) the degree of formalisation; iii) the mode of delivery. When discussing the mode of delivery, the chapter explores the impact of the COVID-19 pandemic on the adoption of online training. Then, it examines what informal learning opportunities enterprises offer and what drivers their adoption.

Content of training

Knowing what types of content are targeted in training programmes can help policy makers and social partners contextualise overall patterns of participation in training and assess whether enterprises and their employees are preparing for the future work. The economics literature has traditionally emphasised the distinction between general skills, which are transferable across enterprises, and firm-specific skills, which target the needs of the current employer. Conversely, firm-level surveys, such as the CVTS, collect data on a wider range of training content. New information from the case studies can help enrich the evidence base on what types of training content are offered in enterprises and what factors drive their adoption.

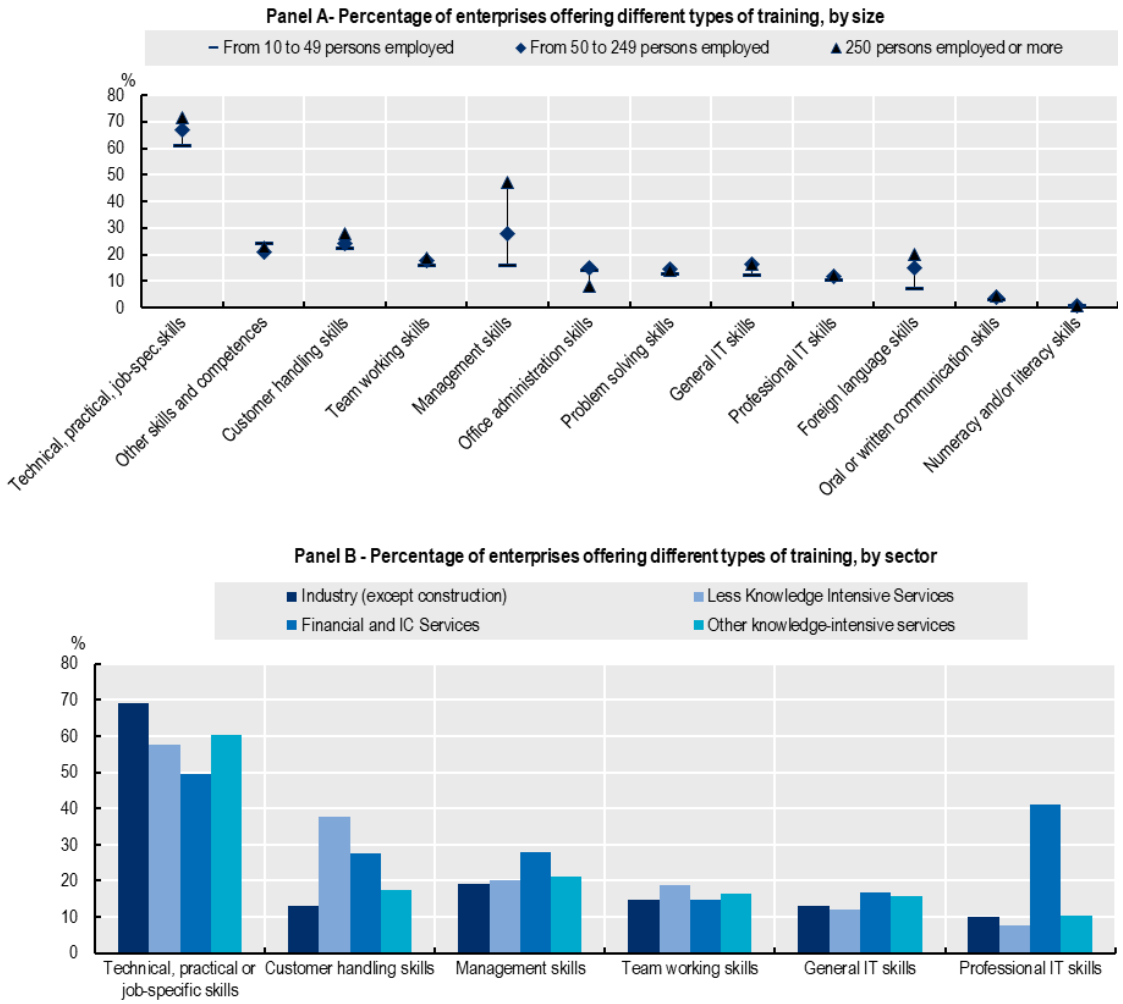
Existing evidence on the content of training

The **economics literature** on training has evolved over the past decades, but the theoretical framework has remained focused on the distinction between **general** and **firm-specific skills**. According to the seminal insights from human capital theory, in perfectly competitive labour markets, enterprises would only provide firm-specific training, because competing enterprises might poach workers who received general training, leading to a negative return of investment (Becker, 1975[3]). In reality, labour markets are rarely perfectly competitive. Subsequent research has shown that labour market frictions, such as imperfect information on labour market opportunities, and preferences over location, work culture and colleague sociability can mitigate poaching concerns, making the provision of general training a worthwhile investment (Acemoglu and Pischke, 1999[4]; Acemoglu and Pischke, 1999[5]; Stevens, 1994[6]). Recent economic research has also aimed to quantify the benefits and explore the barriers to the provision of different types of training. A summary of this literature is provided in Chapter 3.

Firm-level surveys do not make the distinction between general and firm-specific skills, focusing on collecting data on training in a **wider range of types of training content.** The CVTS identifies 12 different skills that are targeted in training programmes, ranging from technical skills to numeracy or literacy skills (see Figure 2.2, Panel A). Although the classification is quite wide-ranging, the empirical literature suggests that enterprises could engage in at least two additional types of training. On the one hand, linked employee-employer Canadian data show that the orientation of new employees made up for 31% of on-the-job training (Dostie, 2013[7]). On the other hand, according to recent research in psychology, enterprises may offer programmes targeting intrapersonal soft skills, which aim to improve emotional intelligence, such as self-awareness and the ability to manage oneself, in addition to interpersonal soft skills, such as ‘team working’ and ‘management’, covered by the CVTS (Botke et al., 2018[8]).

Some of the key findings from the CVTS data seem to be consistent with the insights from human capital theory. Enterprises in the EU-27 are disproportionately more likely to offer training on technical, practical or job-specific skills, which is more likely to be firm-specific (see Figure 2.2, Panel A). In practice, a large proportion of this training focuses on health and safety and is delivered due to regulatory pressure (see Chapter 3). Other data from the CVTS suggest that training on health and safety accounts for 23% of total training hours across enterprises in the EU-27. Fewer enterprises offer courses related to soft skills (e.g. 'team working') and general IT skills, and virtually no enterprises offer courses related to foundational skills, which are more easily transferable to other firms and work contexts. Yet, in line with subsequent economic research, other factors are likely to determine the choice of training content. There is substantial variation in types of training offered across sectors, but not across different size classes (see Figure 2.2). For example, technical skills are more common in Industry, customer-handling skills are more prevalent in the Services sectors and professional IT skills are predominant in Finance and Information and Communication (IC) Services. These differences cannot be easily explained through the usual framework offered by human capital theory and might be driven by enterprise and labour market characteristics.

Figure 2.2. Skills targeted in training opportunities in the EU



Note: Data report the three most frequently targeted skills by enterprises in CVT courses. The sample includes enterprises with 9+ employees from all sectors in EU-27 countries.
Source: Eurostat, CVTS 2015, [*trng_cvt_29s, trng_cvt_29n2*]

New evidence on the content of training

Insights from the case studies can expand the evidence base on i) what types of training content enterprises offer; and ii) what factors drive the adoption of different types of training content.

Describing types of training content

Training reported by enterprises in the context of the semi-structured interviews falls into six main categories (Table 2.1). The most frequent type of training focuses on **technical, practical or job-related skills**, followed by training in **health, safety and security** and **soft skills**. Programmes for the **induction of new employees to the enterprise** come next in order of importance, contributing to employee adaptation to company cultures and processes. Programmes targeting **IT skills** are less common, whereas **foreign language** courses are only offered in a handful of enterprises.

Table 2.1. Types of training content offered by enterprises in the case studies

Type of training	Examples of content in training programme
Technical, practical or job-specific skills	Lean production, machine training, product training, office administration, accounting and financial modelling, sales training, customer-handling
Health, safety and security in the workplace	Hygiene, first aid, security in the workplace, health and safety in the workplace
Soft skills	Resilience, self-organisation, communication, conflict management, co-operation in a team, leadership, management
Induction of new employees	Corporate culture, introduction to different areas of the company, mix of skills and knowledge areas for new position
General and professional IT skills	Software, cloud platforms
Foreign language	Local language lessons for non-native speakers, foreign language lessons for native employees

Note: Interviewees were asked to describe in detail the two most frequently offered training opportunities in the enterprise. The six types of training were developed starting from the CVTS categories to best summarise the information gathered.
Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

The six types of training identified in the enterprise case studies and the CVTS categories have a degree of overlap, but discrepancies are also present. Firstly, firms mention frequently and explicitly training related to **health, safety and security in the workplace,** a category that is not available in the CVTS. Enterprises in the sample generally prioritise training programmes covering health, safety and security, because of regulatory pressures (see Chapter 3). Examples of training programmes covering health, safety and security include first-aid training, training on hygiene regulations or security measures.

Secondly, enterprises in the sample mention a much wider range of training opportunities targeting **soft skills** than those included in the CVTS classification (i.e. 'team working' and 'management'). The results confirm the findings of the psychology research that many enterprises offer programmes that aim to improve intrapersonal soft skills, such as resilience and self-organisation (Botke et al., 2018[8]). For instance, a large firm providing Low-Knowledge Intensive Services (LKIS) in Austria offers a two-day optional training programme on resilience that helps employees deal with stressful situations.

> *The three most frequently taken up training courses in the enterprise are according to HR, those in which the aim is to "learn more about yourself", such as resilience training. Resilience training is about dealing with stressful situations, finding the way back to the "inner balance". The course is implemented on-site with an external trainer and lasts about two days.*
>
> *Large LKIS enterprise, Austria*

Courses on interpersonal skills focus on communication and feedback, conflict management or co-operation in a team. Enterprises also offer programmes on leadership on top of programmes targeting management skills. For example, a large high-tech manufacturing enterprise in Italy offers leadership training to ensure that all employees develop their leadership potential consistently with company values.

Thirdly, the enterprises in the sample frequently mention **induction training** for new employees. Consistent with research on Canadian data (Dostie, 2013[7]), some enterprises in the sample report offering specific training programmes for new employees, which do not easily fit in any other category. These programmes may encompass an introduction to the corporate culture or the different lines of business in the enterprise. They may also convey a broad mix of skills and knowledge areas for the new position, often involving technical and soft skills and covering safety requirements in the workplace. For instance, new employees in a hotel in Estonia participate in a two-day induction programme, where they are introduced to the how the business functions, and they receive training in any specific areas where they might have skill gaps.

Contrary to their relevance in the current EU policy-debate, the case studies included little mention of training programmes to improve the literacy and numeracy of low-skilled adults or training targeting green skills or green management practices, which may be increasingly important in the context of climate change action and the European Green Deal. Clearly, it is possible that green skills are covered in existing programmes, but the case studies did not provide any indication that this is the case. Chapter 5 explores why and how government and social partners could intervene to foster the adoption of training targeting green skills and green management practices.

Patterns in the provision of training content

The choice of training content seems to be mainly driven by **sector**, the **degree of workforce autonomy**, the **education level of the workforce** and the **product market strategy** (see Table 2.2). As in the CVTS, sector plays a more important role than size in driving training provision (see Table 2.2). For example, Knowledge-Intensive Service (KIS) enterprises are more likely to report implementing soft skills training, whereas low-tech manufacturing enterprises are more likely to focus on programmes covering technical, practical or job-specific skills.

Table 2.2. Patterns in the adoption of types of training content in the case studies

Type of training content	Where is it more common?
Technical, practical or job-specific skills	Low-tech manufacturing enterprises Enterprises with medium to low educated workforce without full autonomy
Health, safety and security in the workplace	High-tech manufacturing and LKIS enterprises Enterprises with medium to low educated workforce without full autonomy Enterprises with a market strategy based on lower prices
Soft skills	KIS enterprises Enterprises with highly educated and autonomous workforce Enterprises with a product market strategy based on new products and services
Induction of new employees	LKIS enterprises
General and professional IT skills	No clear pattern emerges
Foreign languages	No clear pattern emerges

Note: Interviewees were asked to describe in detail the two most frequently offered training opportunities. The six types of training were developed starting from the CVTS categories to best summarise the information. Enterprises have a highly educated and autonomous workforce if their workforce is mainly educated at a tertiary level and if more than half of employees have full autonomy in how they execute their tasks.
Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

To a significant extent, these sectoral patterns can be explained by the **degree of workforce autonomy** and level of education of the workforce. KIS enterprises are more likely to grant a higher degree of autonomy and their employees are more likely to hold a higher education qualification. There seems to be a positive relationship between the level of workforce autonomy and training on soft skills as opposed to technical skills or health, safety and security requirements in the workplace. When employees have higher discretion on how to conduct their tasks, it is more important that they have stronger intrapersonal skills to better manage their own time and better interpersonal skills to have more fruitful interactions with their colleagues. This was highlighted by an Estonian financial services enterprise offering a training programme targeting leadership and team working skills.

> *The reason to offer this training is to develop leadership and teamwork skills: how to assemble service teams in the most effective way, so that joint collaboration works and everyone speaks the same language to each other and to customers.*
>
> *Financial service enterprise, Estonia*

The **product market strategy** can also contribute to explain the provision of soft as opposed to "hard" skills. Enterprises with a market strategy based on new products and services are more likely to rely on soft skills training, because better soft skills can foster innovation through knowledge exchange among employees. Conversely, firms with a market strategy based on lower prices are more likely to limit their provision to compulsory training in health and safety in the workplace to keep costs low.

Identifying the drivers of adoption of programmes targeting IT skills and foreign languages courses is difficult, as these are less common in the sample. However, the interviews still allow the identification of some coherent patterns and potential good practices. Programmes targeting IT skills in the sample cover either cloud platforms and applications or specific software, such as Microsoft Excel. For cloud platforms and applications, the training programme is part of a widespread workplace transformation plan involving most employees in a few firms. For instance, a medium KIS enterprise in Italy works with an external provider on a company-wide digitalisation programme. Similar initiatives might be relevant to SMEs in the context of the digital transition.

> *First, the enterprise worked with an external provider to identify which functionalities of a cloud service platform could be beneficial. Second, the provider delivered tailored training to a group of early adopters. Third, the early adopters helped other employees to become more familiar with the platform and its applications.*
>
> *Medium KIS enterprise, Italy*

When it comes to **foreign language training**, enterprises report offering both local language classes to non-native-speakers (e.g. English lessons in an Irish firm) and foreign language classes to native employees (e.g. English lessons for French-speaking employees in a French enterprise). Local language classes can be important for the integration of workers with migrant background in the workplace. For example, a medium LKIS firm in Ireland offers English training to workers, who mainly come from Eastern Europe, so that they can grow and develop within the company.

Degree of formalisation of training

The degree of formalisation of training has received increasing attention by policy makers. For example, the recent EU Skills agenda has put a strong emphasis on micro-credentials, which are certificates or badges that acknowledge the completion of small volumes of learning (European Commission, 2020[9]). Certification is particularly important for non-formal training which otherwise does not lead to a qualification that feeds into the National or European Qualification Frameworks (see Box 2.1).

These developments are consistent with the findings from the economics literature. According to economic research, participating in training that leads to a qualification, certificate or licence can facilitate transitions

in the labour market for individuals and speed-up the recruitment process for employers. However, enterprises might be reluctant to adopt training leading to a qualification, licence or certificate, because of poaching concerns, larger organisational costs and lower flexibility in the choice of the learning content. There is limited evidence from quantitative surveys on the incidence and drivers of formalisation. New data from the case studies can contribute to enrich the evidence base on what drives the decision to formalise training.

Box 2.1. Defining degrees of formalisation of training

According to Eurostat, training is considered formal if it leads to a qualification recognised by national education or equivalent authorities, which lasts at least one semester, and non-formal otherwise. However, non-formal training can sometimes lead to a nationally recognised qualification or a certificate (e.g. issued by a professional organisation) or a non-accredited certificate of attendance. This leads to three main degrees of formalisation of training for the purpose of this chapter:

- Formal training
- Non-formal training, but leading to a qualification, certificate or licence
- Non-formal training and not leading to a qualification, certificate or licence

Source: Eurostat. (2016[1]), Classification of learning activities, https://doi.org/10.2785/874604.

Existing evidence on the degree of formalisation

The **economics literature** suggests that obtaining a qualification or certificate can **reduce hiring frictions** in the labour market. Obtaining a certificate or a qualification can help individuals demonstrate (or "signal") their skills, knowledge and abilities. This decreases uncertainty for potential employers, who can more easily identify suitable candidates for a job vacancy and face lower recruitment costs (Spence, 1973[10]). Consistent with these insights, a study relying on US data found that a second chance secondary education programme increased earnings by 10-19% for individuals who took part in the programme, compared to individuals who did not take part, but had similar levels of skills (Tyler, Murnane and Willett, 2000[11]). This difference in earnings is explained by the fact that participants to the programme were better able to demonstrate their skills to potential employers (Tyler, Murnane and Willett, 2000[11]). Similarly, a more recent working paper has found that obtaining a skills certificate increases earnings for freelancers competing in an online market place, after controlling for their level of productivity (Kässi and Lehdonvirta, 2019[12]).

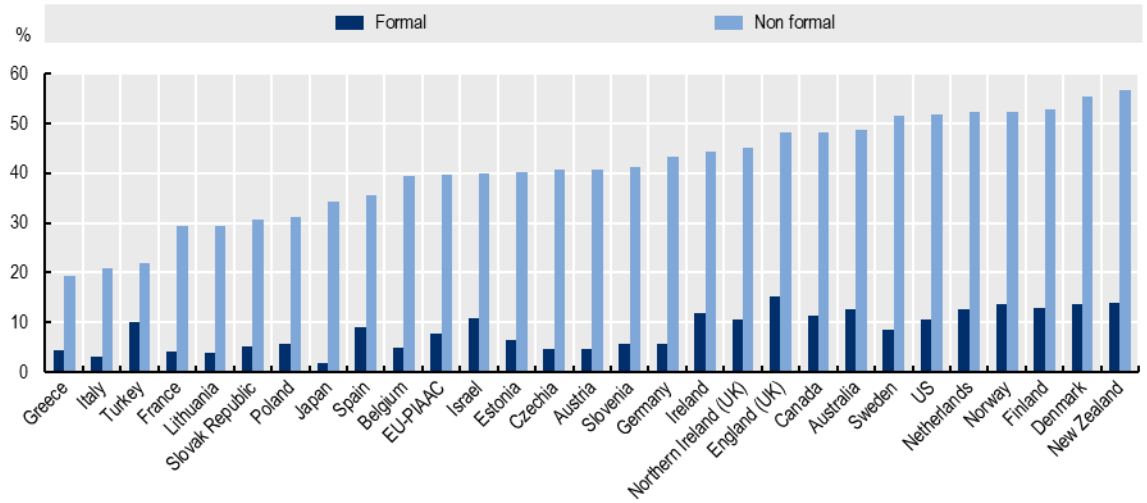
However, there is **limited evidence on the adoption and drivers of training leading to qualifications, certificates and licences** among employers. In principle, when organising and delivering training, employers may be reluctant to opt for formal qualifications or certificates for at least three reasons. Firstly, it might increase the probability that competing firms poach their employees, precisely because their skills, knowledge and abilities become more visible. Secondly, it might increase organisational costs, by making it necessary to rely on external training providers, which are often responsible for delivering certificates (see Chapter 4). Thirdly, it might reduce the flexibility in the choice of the learning content, methods and schedule, because employers might need to adhere to some pre-determined criteria specified within the available certificates and qualifications.

Consistent with these insights, the available evidence suggests that **formal training is not common**. Existing cross-country firm-level surveys, such as the CVTS and the ECS, do not have precise information on the proportion of training that leads to nationally recognised qualifications, certificates or licences.[1] Individual level surveys often ask respondents whether they were enrolled in formal education and training.

Previous OECD research has relied on the PIAAC data to analyse patterns of participation in formal job-related training among individuals (Fialho, Quintini and Vandeweyer, 2019[2]). The results suggest than only 8% of employed individuals across the EU participate in formal training, compared to 40% for non-formal training, and that in no EU country participating in PIAAC more than 15% of employed individuals take part in formal training (see Figure 2.3). This implies that only 16% of all job related training undertaken by working adults in the EU is formal.

Figure 2.3. Participation in formal and non-formal training

Percentage of employed individuals participating to each type of training, by country



Note: The PIAAC questionnaire asks respondents to specify whether they have studied towards a full-time or part-time qualification. Clearly, this may include formal qualifications that are taken outside of the work context. To overcome this limitation, Fialho, Quintini and Vandeweyer (2019[2]) limit the sample to employed individuals participating in job-related courses. However, non – formal training in this context covers both non-formal training leading to a qualification, certificate or licence and non-formal training not leading through a qualification, certificate or licence. This means that the data on formal training alone might underestimate the extent of formalisation and certification of training among employers.
Source: Fialho, Quintini and Vandeweyer (2019[2]), based on calculations from PIAAC, 2012, 2015.

New evidence on the degree of formalisation

Consistent with the PIAAC data, **formal training in the sample is not common**. Only a handful of programmes offered by enterprises in the sample lead to a nationally qualification that meets the Eurostat criterion to be considered formal education. **Certified training is more widespread**, but its adoption is heavily driven by **regulatory pressures**. This is in line with the findings from Chapter 3, which show that regulatory pressures are one of the main reasons driving the decision to provide training. Less than a quarter of training programmes in the sample led to a qualification, certificate or licence and most of these programmes last between one and five full days.

The adoption of training certified through a nationally recognised certificate or licence is only **common** for training on **health, safety and security** and **technical, practical or job-specific skills** (see Table 2.3). Training on health, safety and security in the workplace has the highest likelihood of leading to a nationally recognised certificate or licence. This typically happens to meet legislative or regulatory requirements. For instance, a high-tech manufacturing enterprise in Estonia reported that legislation requires to designate first-aid providers who need to renew their certificate at least every three years. A high-tech manufacturing firm in Ireland reports having to offer a one-day training whenever new equipment is installed to comply with health and safety regulations. Similarly, training on technical, practical or job-specific skills is often certified, because employees in several enterprises in the sample are legally required to obtain licences

or certificates to drive vehicles or operate machines, such as cranes or forklifts. For instance, workers in two French firms in the sample are legally required to hold safe driving aptitude certificates (*CACES, Certificat d'aptitude à la conduite en sécurité*). Employees are also required to obtain a certification to operate in certain job positions. For example, accountants across countries in the sample need to pass exams to become eligible to practice. These courses are typically longer, frequently lasting several months.

Table 2.3. Types of training content and degree of formalisation in the case studies

Type of training content	How common is the formalisation or certification of the training programme?	Most common type of formalisation or certification
Technical, practical or job-specific skills	Very common	Nationally recognised certificate or licence
Health, safety and security in the workplace	Common	Nationally recognised certificate or licence
Soft skills	Rare	Certificate of attendance
IT skills	Very common	Certificate of attendance
Induction of new employees	Rare	Certificate of attendance
Foreign languages	Not common	Certificate of attendance

Note: During the interviews, enterprises were asked to describe in detail the two most frequently offered training opportunities. The six types of training were developed starting from the CVTS categories to best summarise the information gathered. In the table, "Rare" means less than 20% of instances of training across enterprises; "Not common" indicates between 20% and 40%; "Common" means between 40%and 60%; "Very common" indicates more than 60%.
Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

Generally, most other types of training content lead to a certificate of attendance rather than a nationally recognised certificate or licence. Receiving such a certificate is more common for IT skills, than soft skills, company induction and foreign languages. Given the benefits of certification for employees and their future employers, there might be scope for government intervention to increase the provision of certified programmes, especially for soft and IT skills (see Chapter 5).

Mode of delivery for training

The psychology literature suggests that the mode of delivery plays a crucial role in making training effective. Policy makers can rely on the evidence base on the mode of delivery to understand what training opportunities are more valuable in different contexts. Firm-level surveys provide substantial evidence on the incidence on-the-job and course-based training, but not on the role played by online training. The case studies can help explain why enterprises provide training on-the-job or in a course, and can significantly enhance the evidence base on the adoption of online training, both before and after the outbreak of the COVID-19 pandemic.

Existing evidence on the mode of delivery

According to the **psychology literature**, the mode of delivery is an important element of training design, which in turn influences the **transfer of training**, i.e. the extent to which the learning that results from a training experience transfers to the job and leads to meaningful changes in work performance (Ford, Baldwin and Prasad, 2018[13]). Enterprises need to decide whether to offer training in a course or on-the-job and in-person or online (see Box 2.2).

Box 2.2. Defining the mode of delivery

Building on the Eurostat (2016[1]) classification of learning activities, this chapter makes a distinction between three main modes of delivery for training:

- Courses in-person: training sessions taught by one or more people, focused on a specific field and delivered in a class-room or workshop format
- On-the-job training: periods of training using normal tools of work, either at the immediate place of work or in a work-situation
- Online training: training that relies on online resources, which can be self-directed (e.g. following a course online with a pre-determined learning methods), interactive (e.g. a webinar) or blended (i.e. mixing in-person and online delivery).

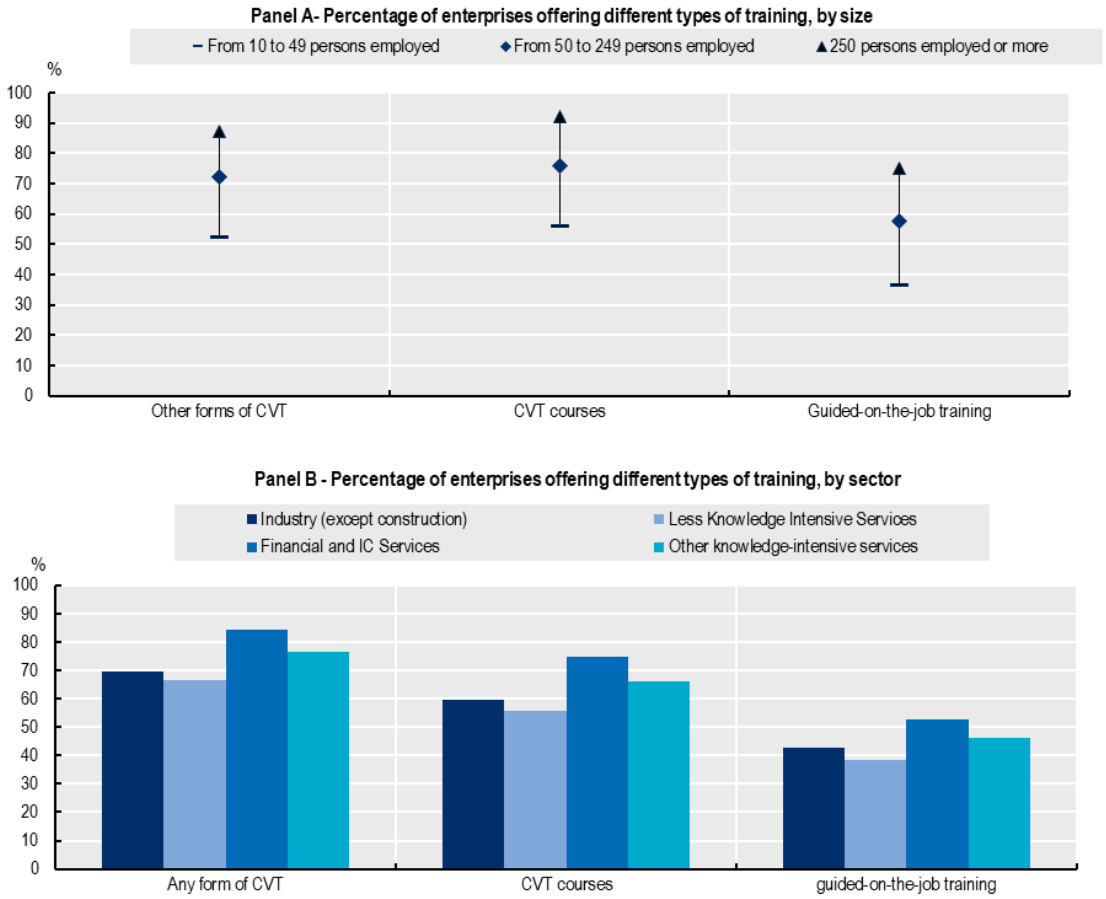
In principle, courses can also be offered in a distance-learning format. However, as most distance learning makes use of online resources, it can be considered self-directed online training. Online resources can also be used to foster informal learning (see the Informal learning section below). This happens, for example, if enterprises publish videos or documents online, but this information is not consolidated in a coherent training programme.

On the one hand, on-the-job training is likely to facilitate the transfer of training, as it provides training in a context that is similar to the actual job setting (Grossman and Salas, 2011[14]). On the other hand, in-person courses make it possible to adopt a wider range of learning methods that lead to better skill retention, while still providing settings that closely resemble multiple aspects of the workplace (Ford, Baldwin and Prasad, 2018[13]). Online training has often been described as leading to lower engagement and participation (Kraiger and Cavanagh, 2014[15]). However, it has the potential of making training more accessible and more compatible with work schedules (Kraiger and Cavanagh, 2014[15]).

The CVTS provides **information** on the incidence of **on-the-job** and **course-based** training. According to the CVTS, more enterprises in the EU offer training in courses than on-the-job: 60% of enterprises offer CVT courses, whereas 41% of enterprises offered on-the-job training.

The CVTS data do not reveal any coherent patterns in the mode of delivery. The results do not seem to be driven by size nor sector (see Figure 2.4). In line with previous research, smaller firms are less likely to offer both courses and on-the-job training (see Chapter 3). Similarly, firms in training-intensive sectors, such as Financial and Information and Communication Services are more likely to offer both forms of training, whereas enterprises in less training intensive sectors, such as Industry and LKIS lag behind on both.

Figure 2.4. Provision of on-the-job and course-based training in the EU



Note: Any form of CVT includes CVT courses, on-the-job training, job rotation, exchanges or secondments, self-directed learning, learning/quality circles and conferences, workshops, fairs and lectures. Sample includes enterprises with 9+ employees across all sectors in EU-27 countries.
Source: Eurostat, CVTS 2015, [trng_cvt_01s, trng_cvt_01n2].

An econometric analysis of the ECS data provides a more detailed picture on the issue (see Box 2.3). Sector stands out as a crucial driver of the mode of delivery, after industry groups become less broad. The age of the enterprise, the number of hierarchical levels, the product market structure and the adoption of new technologies also seem to be important factors.

The **evidence on online training** from firm-level surveys is **limited**. The CVTS and the ECS do not have information on the incidence of online training. Previous research by the OECD, relying on individual-level PIAAC data, suggests that distance learning – of which online learning is likely to constitute a large share – is not common across EU and OECD countries (OECD, 2020[16]). Only one in five participants in non-formal learning took part in a distance course on average across the OECD. However, the share of participants training remotely varies significantly across countries, ranging from just 6% in France to over 40% in Lithuania and Poland.

Box 2.3. Enterprise characteristics and mode of delivery

Econometric analysis of data from the European Company Survey 2019 (see Annex B for an illustration of the results and the methodology) provides additional insights on the relationship between firm characteristics and delivery mode. In line with previous evidence, the analysis shows that smaller firms train less intensively, whereas firms with HPWPs train more intensively. Other results depend on the delivery mode:

- Manufacturing and hospitality enterprises are more likely to have a high share of employees receiving on-the-job training, whereas transport and finance enterprises are more likely to have a high share of employees receiving course-based training.
- Younger firms are more likely to have a high share of employees receiving on-the-job training. Firms with a flatter structure are less likely to have a high share of employees receiving courses. In both cases, these firms might prefer less structured forms of learning, in line with the Informal learning section below.
- Adopting robots is positively correlated with having a high share of employees training on-the-job, suggesting that training is frequently delivered on-the-job, as training for other machines.

Despite its limited use, the **effectiveness of online training** is now being supported by nascent evidence from the **psychology literature**. A recent review of randomised controlled trials mainly focusing on health and social care professionals and university students suggests that webinars are as effective for skills retention as traditional face-to-face classrooms (Gegenfurtner and Ebner, 2019[17]). In a further study of more than 400 German trainees, Gegenfurtner, Zitt and Ebner (2020[18]) conclude that trainees preferred webinars no longer than 90 minutes and webinars that include the option of having real-time interactions with the facilitator.

The **COVID-19 crisis** has spurred **renewed interest** in online delivery of training. Social distancing measures to contain the spread of the virus have made delivering training face-to-face either impossible or impractical. Many practitioners have claimed that the crisis could represent an opportunity to accelerate the digital transition, including in the field of education and training (Standage, 2020[19]). Nonetheless, systematic evidence on the take up of online training during after the outbreak of the pandemic remains limited.

New evidence on the mode of delivery

The case studies can enrich the evidence base on the mode of delivery providing insights on the following dimensions: i) what drives the choice between training through courses in-person and on-the-job; ii) patterns in the adoption of online training before the outbreak of the COVID-19 pandemic; and iii) patterns in the adoption of online training after the outbreak of the COVID-19 pandemic.

Patterns in the choice between courses in-person and on-the-job training

The case studies reveal that the **main factor** driving the choice between training via courses in-person or on-the-job is the **type of training content** offered (see Table 2.4). Training on health and safety requirements, soft, IT and language skills is overwhelmingly delivered in a course-based format, whereas training on the induction of new employees is delivered either in a course-based setting or on-the-job. Training on technical, practical or job-specific skills is also delivered on-the-job, but to a lesser extent compared to the induction of new employees.

Table 2.4. Types of training content and mode of delivery in the case studies

Type of training content	How common is delivery in courses in-person?	How common is delivery on-the-job?
Technical, practical or job-specific skills	Very common	Not common
Health and security in the workplace	Very common	Rare
Soft skills	Very common	Rare
IT skills	Very common	Rare
Induction of new employees	Common	Common
Foreign languages	Very Common	Rare

Note: During the interviews, interviewees were asked to describe in detail the two most frequently offered training opportunities in the enterprise. The six types of training were developed starting from the CVTS categories to best summarise the information gathered. In the table, "Rare" means less than 20% of instances of training across enterprises; "Not common" indicates between 20% and 40%; "Common" means between 40% and 60%; "Very common" indicates more than 60%.
Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

These results may be explained by two factors: the desire to **foster the transfer of training** and the need to **respect regulatory requirements**. The same two factors explain why enterprises decide to rely on external providers (see Chapter 4), unveiling coherent patterns in the choice of the mode of delivery and the decision to outsource training. Consistent with psychology research (Grossman and Salas, 2011[14]), conducting training in the actual physical environment might facilitate knowledge retention for job-specific or firm-specific skills. For example, employees receiving barista training in an Irish hotel can practice directly with the coffee machine they will be using daily and receive some instructions on safety and cleaning procedures. This is not necessary for training on soft, IT and language skills, because trainers can recreate settings that closely resemble multiple aspects of the workplace. For instance, employees receiving a self-organisation and time management course in a large Austrian high-tech manufacturing firm are first asked to discuss anonymous practical examples from the workplace and they then get the opportunity to practice how to resolve these situations through role-playing. This interpretation is also supported by the opinions expressed by the interviewees, for instance the HR director in an Italian enterprise. On the other hand, providing training in courses rather than on-the-job can facilitate the involvement of external training providers, which might be best placed to deliver training for more transversal skills and knowledge areas (see Chapter 4).

> *The decision of selecting one mode of delivery rather than another depends on the contents of the training. For example, a training about the production processes is more likely to be carried out as on-the-job training.*
>
> *Large low-tech manufacturing enterprise, Italy*

Firms often need to deliver the training through a course in order to fulfil regulatory requirements. Many of the licences and certificates required by legislation to ensure health and safety in the workplace, manoeuvre machines or operate in certain job positions are obtained through courses offered by external providers (see Chapter 4). In this context, enterprises have little choice with respect to the mode of delivery.

These findings help **explain some of the econometric results** from the ECS (see Box 2.3). Course-based delivery models seem to be more common in sectors with more extensive regulatory requirements, such as Transport, where employees need to obtain licences to operate vehicles and machines, or in sectors in which training on soft-skills or IT skills is more prevalent, such as Finance and Insurance or Professional Services. Conversely, on-the-job training seems to be more common in sectors that have a stronger focus on job and company specific skills, such as Accommodation and Food.

Patterns in online training before the outbreak of the COVID-19 pandemic

Before the outbreak of the pandemic, the provision of **online training was not widespread**. Online training was provided by a minority of enterprises in the sample and did only account for a small proportion of their total provision. In line with PIAAC data, less than a third of enterprises reported to make widespread use of online training before the pandemic. Whenever interviewees are able to provide precise figures, they report that online training represented between 10% and 30% of total training delivered before the pandemic.

The **provision of online training** before the outbreak of the pandemic was driven heavily by **size**. Large enterprises and/or enterprises that are part of a multinational company were disproportionately more likely to offer online training. In the majority of cases, these firms decided to build their own training or learning platform or "online university", which could also include resources to support online informal learning. This is exemplified by an Irish financial services enterprise part of large multinational company.

> *The enterprise makes use of an internal learning platform that has large volume of articles, videos and courses. Learning paths can be created by the individual or a manager can set a learning path for the employee. These paths are structured around four quadrants that match the enterprise's impact model.*
>
> *Financial services Enterprise, Ireland*

Consistent with insights from psychology research (Kraiger and Cavanagh, 2014[15]), these adopters of online training reported that online training facilitated access or reduced delivery costs. For example, an Austrian firm reported that online training has substituted other forms of internal training, because of its logistical advantages. A large French enterprise decided to invest heavily in an online training platform to reduce the costs of delivery long before the COVID-19 crisis, whereas an Irish logistics operator decided to rely on online training to increase efficiency and expand access.

> *Some training is currently structured and delivered through an online internal training campus. The majority of such courses has pre-recorded content with a validation quiz at the end. This online delivery model will be increasingly used to increase efficiency in how people access training, and the amount of training they can engage with.*
>
> *Enterprise providing warehousing services and support activities to transportation, Ireland*

The decision to develop an internal training platform by large firms mirrors their choices with regards to the insourcing of training (see Chapter 4). Developing an online learning platform helps to reduce costs and increase the overall quality of the training offer, which are the same reasons that cause large firms to insource training or set-up their own training centres (see Chapter 4). Medium enterprises are generally less likely to deliver training internally (see Chapter 4), implying that they might struggle to develop their own online training platform, but could still rely on online training courses offered by external providers.

In practice, the use of online training in **medium enterprises** seemed to be an **exception**, driven by specific circumstances or by the presence of management and staff with a technologically friendly attitude. The case studies offered only three examples of widespread use of online training in medium-sized firms. An Estonian LKIS enterprise located in a rural area reported using a learning platform developed by a sectoral association, because it had difficulties in accessing external training providers. An Italian firm in the IT sector reported sending online training programmes as induction material to new joiners, whereas an Irish LKIS business reported using a digital platform to provide instructional videos to employees, for example on how to use the in-house coffee machine. To some extent, the low adoption among medium enterprises might be driven by lower organisational capacity or lower levels of digital readiness among employees. The HR director in a French high-tech manufacturing firm reported that employees were "not ready for e-learning", whereas an Estonian textile manufacturer reported failed experiments with online learning before the pandemic.

> *Online training has been tried, for example, part of the induction training has been provided as an online course, but this was not well received and so the use of online training has remained modest.*
>
> *Enterprise manufacturing textile products, Estonia*

As is the case for courses in-person and on-the-job training, the **content of training** played an important role in the adoption of online delivery. When considering the six types in the training typology, online delivery was only common for training for health, safety and security requirements and IT skills. Before the pandemic, there was some resistance to the widespread adoption of online delivery for technical skills, soft skills and the induction to the enterprise. Some firms emphasised that online training would lead to lower engagement and fewer opportunities to network among colleagues. For example, the HR director of an Austrian firm felt that face-to-face training in the classroom was especially important to strengthen the team spirit and create a good working climate. In practice, online training was often used to provide non-core optional training opportunities or to target specific types of training, where in-person interaction was less valuable. For example, a large French enterprise reported that online training was mainly used for simple and short training actions, while face-to-face training remained the norm when training needed to go deeper into the matter.

Patterns in online training after the outbreak of the COVID-19 pandemic

The case studies suggest that the **pandemic** was an **accelerator of existing trends** in online training, rather than a real catalyst for change. Given patterns of adoption in online training before the pandemic, medium enterprises were less prepared for a transition to online learning when COVID-19 struck and experienced significant difficulties. Large enterprises were more prepared, but remain lukewarm about further expanding online delivery in the future.

During the pandemic, the relative importance of online training has increased in line with expectations, although training provision overall has fallen (see Chapter 1), as many enterprises substituted some in-person with online delivery. For example, a large high-tech Estonian manufacturer reports that several theoretical trainings moved online due to COVID-19 restrictions and the training sessions carried out in-person were required to have a limited number of participants. Similarly, a large high-tech manufacturing French firm reports that the outbreak of the pandemic has increased the overall incidence of online training from 5% to 20% of total provision.

However, the **transition to online training** was different for large and medium-sized enterprises. Pre-pandemic adopters, often large companies, were able to upscale online training capacity relatively quickly, by relying on existing platforms and resources. Non-adopters sometimes managed to organise online delivery successfully. For instance, a medium-sized low-tech firm in Ireland reported that demonstrations from suppliers of equipment, which were typically delivered in-person, were delivered through online video conferencing without a substantial loss of quality. However, in most cases, non-adopters struggled to organise online delivery. For example, a medium-sized high-tech enterprise in Ireland reports experiencing higher organisational costs, due to difficulties in planning and co-ordinating the delivery of training and liaising with external training providers.

> *Planning and co-ordinating training remotely, and accessing training providers to deliver online proved problematic. Due to these two reasons, the costs of providing training increased overall. The enterprise found this surprising, given that online delivery should be more cost-effective.*
>
> *Medium high-tech enterprise, Ireland*

Because of these difficulties, **non-adopters**, frequently medium-sized companies, do not plan to expand online delivery after the pandemic. Non-adopters mainly considered online delivery as an emergency response and are planning to go back to face-to-face delivery models as the pandemic ends. For example, an Italian co-operative providing educational and social services refers to online delivery of training as an

"exception". Against this background, Chapter 5 discusses why and how governments and social partners should support smaller enterprises in the provision of online training.

> *The training activities are mainly organised through in presence classrooms, with the exception of the pandemic period, where the activities have been mainly carried out online.*
>
> *Enterprise providing educational and social services, Italy*

Pre-pandemic adopters seem to be more willing to upscale their online training capacity, consistently with their plans before the outbreak of the pandemic. This attitude was best exemplified by a large Estonian LKIS firm.

> *The proportions are currently approximately 70% online and 30% face-to-face. These changes will probably outlast the pandemic as the implementation of a web-based training system was already planned in the company before the pandemic.*
>
> *Large LKIS enterprise, Estonia*

Even large pre-pandemic adopters of online learning **remain sceptical of the application of online learning**. Several companies insist that face-to-face training sessions are important both for improving the transfer of training and for fostering relationships among colleagues. For instance, a large KIS enterprise in Ireland suggested that in-person sessions leave room for more spontaneous discussions that can in turn lead to new ideas. A professional services firm in Ireland felt that in-person training sessions remain valuable to foster cohesion among trainees. This suggests that in-person delivery will continue to play a central role, even among pre-pandemic adopters. However, some enterprises suggested that it might be possible to better combine in-person and online delivery in blended formats, for instance by alternating online and in-person sessions with the same group of trainees. This could allow combining the flexibility provided by online training with the benefits of in-person delivery.

Informal learning

Policy makers and social partners need to build a strong understanding of what informal learning opportunities enterprises offer, in order to maximise the amount and quality of learning in workplaces. Although measuring informal learning has proven difficult, the economics and psychology literature suggest that it accounts for more than 70% of the total learning time in enterprises and that it leads to significant tangible and intangible benefits, such as higher wages, higher productivity and higher levels of job-satisfaction. The case studies can enrich the evidence base on what informal learning opportunities enterprises offer, and provide more evidence on what drives their adoption.

Existing evidence on informal learning

Evidence from economics and psychology research

Recent empirical work from both the economics and psychology literature suggests that **informal learning** is **more important** than other forms of learning in terms of incidence and intensity. Yet, **measuring informal learning** has proven difficult, due to its unstructured nature (see Box 2.4). Previous research by the OECD finds that informal learning represents 80% of the total hours spent in non-formal and informal learning (Fialho, Quintini and Vandeweyer, 2019[2]). The OECD research defines informal learning as the occurrence of learning by doing, learning from colleagues and supervisors or learning new things to keep up to date with new products and services. About 56% of individuals learn by doing during their job at least once a week, on average across OECD countries, whereas 43% learn from others and 40% learn new things to keep up to date with new products and services (Fialho, Quintini and Vandeweyer, 2019[2]). A

Dutch study that developed a task-based measure of the time individual spent learning at work shows that employees spend on average 35% of their time on activities from which they learn, implying that informal learning accounts for 96% of the total learning time in the workplace (Borghans, De Grip and Van Thor, 2014[20]). Similarly, a review of the psychology literature suggests that informal learning is responsible for 80 to 90% of learning at work (Kraiger and Cavanagh, 2014[15]).

According to both the economics and psychology literature, **informal learning** is also associated with **important benefits** for individuals and enterprises. The economics literature has emphasised the effect of informal learning on wages and productivity. Previous OECD research finds that, after correcting for a number of socio-demographic and job characteristics and controlling for selection into training of the most motivated employees, participation in informal learning is associated with 3.5% higher wages on average across the OECD, compared to 11% for non-formal training (Fialho, Quintini and Vandeweyer, 2019[2]). A recent paper focusing on a field experiment in a sales firm has concluded that employees who were encouraged to seek advice from a randomly chosen partner during structured meetings had average sales gains exceeding 15%, which lasted for 20 weeks after the experiment had ended (Sandvik et al., 2020[21]). In parallel, the psychology literature has focused on intangible benefits. Informal learning is positively related to overall job satisfaction, and self-rated measures of job performance (Noe, Clarke and Klein, 2014[22]). Informal learning can also enhance the transfer of training, by enabling individuals to foster the skills and knowledge that they received during courses and on-the-job training (Noe, Clarke and Klein, 2014[22]).

Box 2.4. Measuring informal learning

Measuring informal learning is difficult, because it is not institutionalised. This means that it may not be possible to keep track of where and when learning is happening. The academic literature has employed three main approaches to overcome this intrinsic limitation:

- Individual-level surveys: ask individuals to specify how much time they spend on different forms of informal learning – for instance Fialho, Quintini and Vandeweyer (2019[2])
- Task-based measures: estimate how much time individuals spend on tasks that involve learning and tasks that do not – for example Borghans, De Grip and Van Thor (2014[20])
- Field experiments: explore how a discrete change in learning conditions (e.g. seeking advice from a partner) affects individual and firm outcomes – for instance Sandvik et al. (2020[21])

Similarly, it has been difficult to distinguish between different forms of informal learning. Using the PIAAC survey, Fialho, Quintini and Vandeweyer (2019[2]) distinguish between three different forms of informal learning:

- Learning by doing: how often individuals learn-by-doing from the tasks performed
- Learning from others: how often individuals learn new work-related things from colleagues or supervisors
- Learning new things to keep up to date with new products and services: how often the individual's job involves keeping up to date with new products or services

Previous OECD research suggests that there is a **positive correlation between informal learning and non-formal training** (Fialho, Quintini and Vandeweyer, 2019[2]). In general, the individual and enterprise characteristics associated with a higher participation in non-formal training and informal learning coincide (see Chapter 3 for patterns in training participation). For example, the chances of learning informally at work decrease with age and tenure and increase with educational attainment (Fialho, Quintini and Vandeweyer, 2019[2]).

However, the **provision of informal learning** opportunities by enterprises seems to be particularly **dependent on work practices and the work environment**. Ensuring that employees engage in informal learning is more difficult than making sure that they take part in training. Unlike training, informal learning is not institutionalised and visible. Enterprises can verify whether employees participate in a training programme, but it may be more challenging to ask and monitor whether employees receive effective mentoring from a more experienced colleague, whether they join information sharing sessions or keep up to date with new products and services. Work practices and the work environment can help improve engagement in informal learning.

Previous OECD research suggests that informal learning is more common among firms that adopt high performance workplace practices (HPWPs), whereby jobs are characterised by high levels of autonomy, performance-based pay and teamwork (Fialho, Quintini and Vandeweyer, 2019[2]). Similarly, the psychology literature finds that the incidence of informal learning is influenced by contextual work factors, such as the commitment of management to learning, the presence of an internal culture committed to learning and access to people to form webs of relationships (Noe, Clarke and Klein, 2014[22]).

Sise seems to also play an important role. The psychology literature suggests that informal learning may be more common in small and medium enterprises, who may lack the resources to organise more structured training provision (Cardon and Valentin, 2017[23]).

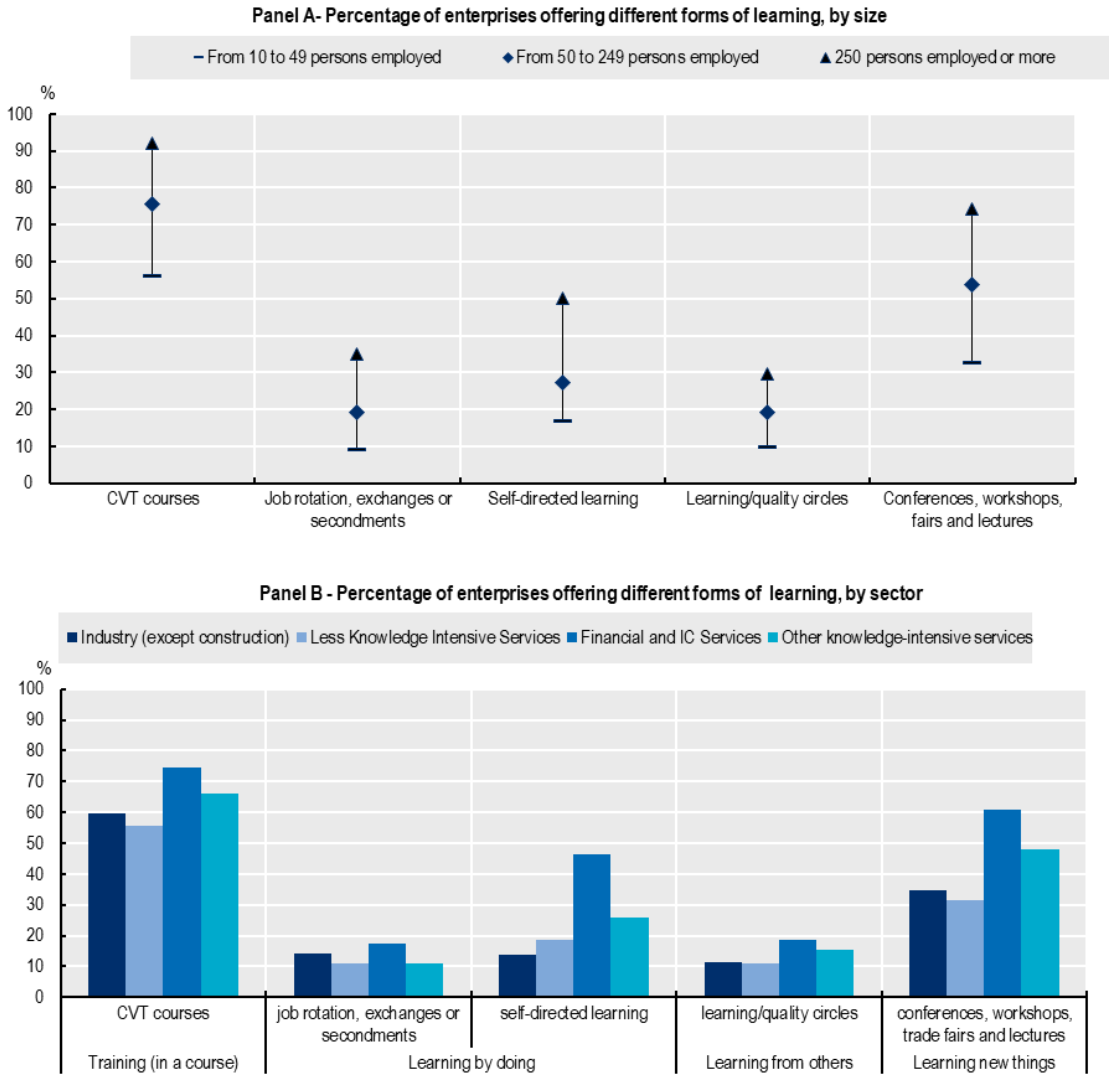
Recently, the psychology literature has also started emphasising the importance of **online resources** in fostering informal learning. Technology tools and applications, which are often combined in a learning management system, allow on-demand access to learning materials and can foster exchange among colleagues (Gegenfurtner, Schmidt-Hertha and Lewis, 2020[24]). As for online training, several commentators and practitioners have pointed out that the adoption of such resources could accelerate during the COVID-19 crisis (Standage, 2020[19]). However, the evidence on the incidence and drivers of adoption of online resources to foster informal learning remains limited.

Evidence from firm-level surveys

When looking at the results from the CVTS, informal learning does **not seem to be as prevalent** as the psychology and economic literature would suggest. Data from the CVTS suggests that **informal learning is less common** than training courses. The CVTS includes information on a wide range of informal learning opportunities, including learning by doing through job rotation, exchanges and secondments and self-directed learning, learning from others through learning and quality circles, and keeping up to date through conferences and workshops (see Figure 2.5). None of these forms of informal learning is as common as training courses, across enterprises from different size-classes and sectors.

To some extent, the **mismatch** between the CVTS and the results from the academic and psychology literature might reflect the **emergent nature of informal learning**. Informal learning is not offered by enterprises, but happens through spontaneous interactions among employees, that can be nurtured through the creation of learning environment. This implies that asking enterprises, as opposed to employees, what informal learning opportunities are “offered” in their organisation might underestimate the overall incidence of informal learning.

Figure 2.5. Incidence of informal learning in the EU



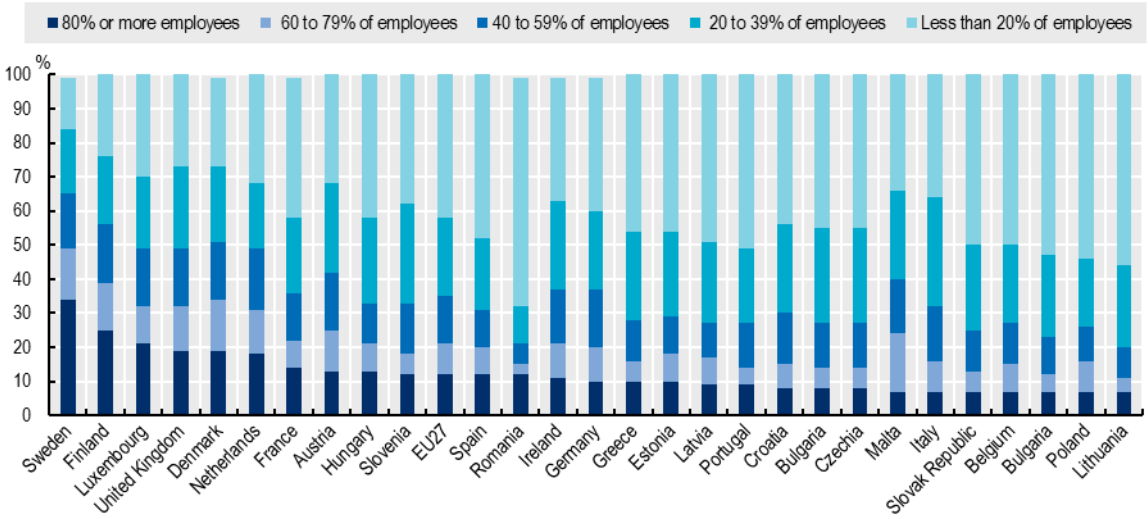
Note: Sample includes enterprises with 9+ employees across all sectors in EU 27 countries.
Source: Eurostat, CVTS 2015, [*trng_cvt_01s, trng_cvt_01n2*].

Learning by doing could also happen through exposure to problem solving, in addition to job rotation, exchanges and secondments, and self-directed learning. The ECS shows that **problem solving is not common** (see Figure 2.6). In 42% of establishments across the EU, relatively few employees (less than 20%) have jobs that enable them to find solutions to unfamiliar problems.

There is substantial variation across countries. In Nordic countries, such as Sweden and Finland, less than a third of enterprises offer limited problem solving opportunities. Conversely, in some Central European countries, such as Poland and Lithuania, more than half of enterprises give only very few employees any exposure to unfamiliar problems.

Figure 2.6. Incidence of problem solving across the EU

Percentage of enterprises reporting that a given share of their employees engage in problem solving



Note: Data come from the management questionnaire. Managers were asked how often their employees "find solutions to unfamiliar problems".
Source: Eurofound, ECS 2019, [*compprobs*].

Further econometric analysis of the ECS suggests that problem solving is **concentrated in a minority of enterprises**, which seem to be involved at least to some degree in the knowledge economy (see Box 2.5). Enterprises where employees engage more intensively in problem solving are more likely to belong to knowledge intensive sectors, to make use of HPWPs, to have higher levels of technology adoption and to be more innovative. To some extent, these results might also reflect the occupational composition of different enterprises.

Box 2.5. Enterprise characteristics and intensity of problem solving at work

Econometric analysis of data from the European Company Survey 2019 (see Annex B for an illustration of the results and the methodology) provides additional insights on the relationship between different enterprise characteristics and problem solving intensity at work. The results show that enterprises with the following characteristics are more likely to report have a higher share of employees engaged in problem solving:

- Enterprises in two knowledge intensive sectors, information and communication and professional and technical services, but not in finance and real estate
- Enterprises that adopt HPWPs, as in previous research (Fialho, Quintini and Vandeweyer, 2019[2])
- Enterprises that have recently adopted the use of data analytics and purchased customised software
- Enterprises which have a product market strategy based on developing new products and services or customisation

New evidence on informal learning

The case studies can enrich the evidence base on i) what informal learning opportunities enterprises offer; ii) how enterprise characteristics affect the adoption of these opportunities; iii) and how enterprises can foster a learning environment.

Mapping different forms of informal learning

Enterprises in the sample offer a wide range of opportunities covering the three dimensions of informal learning discussed in previous OECD research (Fialho, Quintini and Vandeweyer, 2019[2]): learning by doing, learning from others and keeping up to date with new products and services (see Table 2.5).

In the case of **learning by doing**, employees of firms in the sample can learn by getting **exposure to unfamiliar problems** in their job, as in the ECS, for instance by working on different projects, with new clients or new technologies. Alternatively, they can learn new working methods and procedures by getting **exposure to tasks and problems in different positions**, via trial or discovery periods, and, as in the CVTS, exchanges and secondments, or job rotation.

Opportunities to getting **exposure to tasks and problems in different positions** exhibit substantial differences in design and objectives. Trial and discovery days, exchanges and secondments, are not mandatory and can be requested by employees. Their objective is both to enable employees to familiarise themselves with new processes and work practices and to form relationships with colleagues in different parts of the business. For instance, in a French medium KIS firm, employees can spend a few days in a different service division that interests them to exchange with their colleagues. Conversely, structured job rotation system are typically mandatory and aim to improve productivity and resilience. For example, in a large low-tech manufacturing enterprise in Estonia employees are requested to rotate across different production zones at pre-defined intervals, according to production needs.

Table 2.5. Different forms of informal learning in the case studies

Learning mode	Form of learning	Typical examples
Learning by doing	Exposure to unfamiliar tasks or problems	Working across different projects, working with new clients, working with new technologies
	Exposure to tasks or problems in different positions	Trial or discovery periods, exchanges and secondments, structured job rotation system
Learning from others	Pairing with more experienced employees	Buddy schemes, mentoring schemes, working under supervision of an experienced colleague, coaching and tutoring sessions
	Observing and/or asking colleagues	Observing the work of others, asking advice, casual exchange with colleagues, daily feedback chats, asking questions on online forums or platforms
	Information sharing session with colleagues	Working groups to address specific challenges, quality circles with experts, team meetings, cross-divisional meetings, seminars/talks to share best practices, online platforms for cross-company exchange
Keeping up to date with new products and services	Within the enterprise	Monitors displaying relevant information, monthly or quarterly newsletter, monthly or quarterly announcements, internal library, updates on intranet or internal learning platform, all-employee meeting
	Outside the enterprise	Exhibitions or trade fairs, conferences, guided visits of companies or plants

Note: During the interviews, enterprises were asked to describe in detail informal learning opportunities they offer. The forms of informal learning were chosen in order to best summarise the information gathered, on the basis of the baseline classification developed by Fialho, Quintini and Vandeweyer (2019[2]),
Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

When it comes to **learning from others**, employees are able to learn from both supervisors or colleagues in three main ways. Firstly, they can be **paired with more experienced colleagues**. New employees are

often assigned a buddy or mentor who gives them advice and support to better integrate in the company. New employees or employees starting in a new position frequently spend some time working under the supervision of a more experienced colleague. Employees who have already joined the company can receive coaching and tutoring session from more experienced colleagues or from coaches in the HR department. There is wide variation in the scope and organisation of these opportunities. In some enterprises, employees are assigned a buddy, mentor or supervisor, but their duties are only loosely defined. In others, there are specific requirements for the selection of mentors, supervisors or coaches, their responsibilities, and the frequency or format of the sessions, as in an Irish financial services provider.

> *Mentees are paired with mentors who are at least 2 levels above them and are outside of their own business unit. Such pairings last for 6 months and mentors and mentees are expected to meet at least once a month during this period to discuss any issue mentees might be facing on their job.*
>
> *Financial services enterprise, Ireland*

Secondly, employees can learn by **observing or asking colleagues**. These learning opportunities are often unstructured. Many enterprises report that employees can learn by observing the work of others or ask directly for advice or help. More structured forms may include daily feedback chats. For example, in a medium Irish LKIS business colleagues have short daily feedback chats where they review what is working well and what could be improved. Online platforms or networks can also play a role in encouraging employees to ask for help and support. For instance, a medium Austrian high-tech manufacturer has set-up a dedicated channel on the Slack application, where employees are encouraged to post question about work issues.

Thirdly, employees can learn through **information sharing sessions with colleagues**. Opportunities in this category include weekly or biweekly team and cross-divisional meetings, but also more specific or ad-hoc events, such as working groups to address specific challenges, quality circles among experts and seminar or talks for best practices. In many firms, these opportunities tend to have well-defined format, frequency and duration. For example, in a medium Austrian KIS enterprise lunch meetings are organised once or twice a month, where colleagues present a project they have been working on. Online platforms and tools can also play a role to encourage information sharing, for instance by enabling employees to share templates for outputs and examples of previous work.

Lastly, employees can **keep up to date** with new products and services, with opportunities both **inside** and **outside the enterprise**. Within the enterprise, this includes the management distributing information on new industry trends or products in a variety of ways, including newsletters, monthly or quarterly announcements or monitors in lounges. Some enterprises also have their own library with dedicated books and magazines, and share relevant information or learning material within online platforms, as suggested by the psychology literature. For example, a large Italian manufacturing firm uses its internal e-learning platform to distribute articles and studies on new industry trends and products. Team meetings or monthly and quarterly all-employee meetings also provide opportunities to share information on new products or industry trends, as highlighted, for instance, by an Austrian firm.

> *The enterprise has a monthly all-employee-meeting, where the management presents all the facts and figures of the company and news about new products and developments.*
>
> *Medium high-tech manufacturing enterprise, Austria*

For opportunities outside the enterprise, in line with the CVTS, firms report that they encourage employees to attend conferences, exhibitions and trade fairs, and sometimes organise visits of other production sites.

Patterns in the adoption of informal learning

The adoption of these learning opportunities is not homogenous among enterprises. Consistent with the patterns in the types of training content above, the adoption of different forms of informal learning

opportunities seems to be driven mainly by **sector**, the **degree of workforce autonomy**, **the education level of the workforce** and the **product market strategy** (see Table 2.6). However, in the case of informal learning, **size** also plays an important role (see Table 2.6).

Table 2.6. Patterns in informal learning in the case studies

Learning mode	Form of learning	Where is the form of learning more common?
Learning by doing	Exposure to unfamiliar tasks or problems	KIS enterprises Enterprises with highly educated and autonomous workforce
	Exposure to tasks or problems in different positions	Trial and discovery days, exchanges and secondments in enterprises with 1 000+ employees or that are part of a multinational. Structured job rotation systems in high-tech and low-tech manufacturing
Learning from others	Pairing with more experienced employees	Enterprises with 1 000+ employees or which are part of a multinational
	Observing and/or asking colleagues	KIS enterprises Enterprises with highly educated and autonomous workforce Enterprises with 50-250 employees and young enterprises (less than 10 years) Market strategy based on better quality
	Information sharing sessions with colleagues	KIS enterprises Enterprises with highly educated and autonomous workforce Market strategy based on new product development and better quality
Keeping up to date with new products and services	Within the enterprise	No clear pattern emerges
	Outside the enterprise	KIS and high-tech manufacturing enterprises

Note: Interviewees were asked to describe in detail informal learning opportunities offered in the enterprise. The forms of informal learning were chosen in order to best summarise the information gathered. Enterprises have a highly educated and autonomous workforce if their workforce is mainly educated at a tertiary level and if more than half of employees have full autonomy in how they execute their tasks.
Source: Semi-structured interviews in 100 enterprises in AUT, EST, IRE, ITA, IRE.

Sector seems to be an important driver for offering informal learning opportunities, but its influence is partially due to the **degree of workforce autonomy** and **the education level of the workforce.** As foreshadowed in the section exploring the patterns in training content, KIS enterprises are more likely to have a more autonomous and better-educated workforce. Enterprises with a high degree of workforce autonomy and with a highly educated workforce seem to have a distinct informal learning model, characterised by exposure to unfamiliar problems, opportunities to learn by asking colleagues and information sharing sessions. Work in these enterprises is frequently organised around projects. For example, a provider of advertising services in Austria reports that employees can ask to be involved in different projects and that there is an effort to take their preferences into account to ensure high levels of engagement. These enterprises frequently invest resources in tools to facilitate information and knowledge sharing. For example, a large KIS firm in France has established a catalogue of competences to enable employees to identify colleagues with specific competences and has fostered the creation of product communities where employees can exchange information on specific products.

Enterprises in **manufacturing**, both low-tech and high-tech, are more likely to offer structured **job rotation systems**. The enterprises introducing these schemes seem to have a dual objective: enabling employees to develop new skills, while improving productivity and resilience of the enterprise as a whole. As employees expand their skillset, they become more fungible, allowing the firm to better respond to unforeseen shocks. For instance, a medium high-tech Irish manufacturer reports that a structured job rotation system is crucial to fill gaps caused by sickness or absence of key staff.

Product market strategy also plays an important role. Enterprises that strive to provide better quality and enterprises offering new product development are more likely to foster opportunities for information sharing. In these enterprises, information-sharing sessions seem to be an important forum where employees exchange information on good practices or new approaches. For example, a large Estonian firm that strives to provide better quality organises weekly divisional meetings where employees can review how the past week has gone and identify what could be done better. Yet, enterprises that strive to offer better quality, regardless of size, are also more likely to offer opportunities to learn by observing and asking colleagues. This constant exchange can be important to drive constant improvement in products and work practices. For instance, in a medium-sized Irish hospitality business daily feedback chats among employees are useful to review what is working well and what could be improved.

Firm size seems to influence the reliance on more or less structured forms of informal learning. Medium-sized enterprises, which are also more likely to be young, seem to rely more on opportunities to observe and ask colleagues. Conversely, the largest enterprises in the sample (1 000+ employees) and enterprises, which are part of a multinational, are more likely to offer trial and discovery days, exchanges and secondments, and pairing employees with more experienced colleagues. In smaller firms, employees are able to establish close working relationships with many colleagues. This attitude was best described by interviewees in a medium French manufacturer.

> *Given that the company is small, everyone knows each other and exchanges regularly and easily, creating a climate that allows all employees to be interested in what other employees do.*
>
> *Medium high-tech manufacturing enterprise, France*

As enterprises increase in size, proximity to other colleagues is progressively lost, but the pool of capabilities employees can draw upon grows. Buddies, mentors, supervisors and coaches become more important in channelling soft and hard knowledge to less experienced employees. Exchanges and secondments can become important to gain exposure to other parts of the business and strengthen internal networks.

Understanding how enterprises foster a learning environment

Firm characteristics such as size, sector or the product market strategy are not the only factors influencing the adoption of informal learning. Consistent with the psychology literature (Noe, Clarke and Klein, 2014[22]), the cases studies suggest that engagement in informal learning depends on the **existence of a work environment** where learning is encouraged and valued. The case studies show that two drivers are especially important in shaping the creation of a learning environment, which may benefit from tailored policy interventions (see Chapter 5).

First, **management attitudes** are a crucial element of a learning environment. Some enterprises in the sample actively encourage managers to be approachable and co-operative so that employees feel more comfortable and empowered to acquire and exchange knowledge. For instance, in a medium Irish high-tech manufacturing enterprise, the senior management attempts to foster a culture based on a “no such a thing as a stupid question” principle.

> *Department managers seek to encourage open questions at all times by modelling a “no such thing as a stupid question” culture, so that people learn from each other’s experience and knowledge, as well as through training.*
>
> *Medium low-tech manufacturing enterprise, Ireland*

These positive management attitudes should not be taken for granted. Some managers might adopt a more hierarchical and less inclusive approach, which might discourage employees from experimenting with new methods and exchanging information. This is the case, for example, in a large Italian high-tech manufacturing firm included in the sample.

> *Considering the work environment, there seems to be a top-down orientation, due to the presence of the strong and visionary founder. Such top-down orientation does not seem to actively prompt horizontal exchanges and extremely welcoming practices.*
>
> *Large high-tech manufacturing enterprise, Italy*

Second, enterprises can opt for the **institutionalisation** of some aspects of informal learning opportunities, by establishing clear responsibilities and rules on the roles, the frequency and the duration. For example, a large KIS enterprise in Ireland organises an annual internal careers fair to promote exchanges and secondments and establishes working groups on disruptive trends with a pre-defined scope and duration.

Firm size seems to heavily influence the decision to institutionalise some aspects of informal learning opportunities. In line with the previous section, medium-sized enterprises are less likely to adopt rules and responsibilities on the roles, the frequency and the duration of informal learning opportunities. In principle, this decision could be efficient. As remarked by a medium-sized KIS firm in Austria, institutionalisation requires additional resources. Yet, the benefits from these investments might be low in a situation where there is already plenty of knowledge exchange, as observed by the HR director of a medium-sized KIS enterprise in Estonia.

> *Employees are working closely besides each other and managers, so no institutionalisation of informal learning opportunities is required in the enterprise.*
>
> *Medium KIS enterprise, Estonia*

However, **some forms of institutionalisation** may help to **foster informal learning** both in medium and large enterprises. Some enterprises set time and money aside for informal learning opportunities. For example, a medium- low-tech manufacturing enterprise in Estonia offers an increase in salary and allocates a specific amount of money for more experienced employees mentoring junior staff, whereas a call centre in Austria allocates 50% of the time of a team to answer questions by other employees.

Yet, enterprises need to make sure that they have the **support of employees**, if they decide to institutionalise informal learning opportunities. Institutionalisation can meet substantial pushback from employees. A case in point is the introduction of structured job rotation systems. Some HR and employee representatives characterise them as a “win-win” outcome, which enables the enterprise to better change job roles and the employees to acquire knowledge that could be valuable in the job market. Others report negative feedback, related to the fear of losing their position or increased stress in the workplace. Due to such concerns, a few companies in the sample have suspended structured job rotation schemes or abandoned plans for their introduction.

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Note

[1] The CVTS asks some questions about the involvement of formal education institutions, such as higher education or VET institutions, in the provision job-related training, and the use of certifications to assess the benefits of training. Such information does not allow to build a coherent picture of the proportion of training that is formal or certified, but is useful to explore how firms make decisions about training in Chapter 4. The question on the involvement of formal education providers does not allow to assess the overall incidence of formal training among enterprises, because formal education providers may also offer non-formal education opportunities. The question on certification could underestimate or overestimate the share of enterprises that rely on training leading to a nationally recognised qualification or certificate. On the one hand, enterprises might undereport the reliance on certified training, because the question only asks whether they rely on certification to assess the benefits of training, not for other reasons (e.g. regulatory pressures). On the other hand, enterprises might also report that they rely on certification in the case of internal examinations or practical tests that are not nationally recognised. For these reasons, the CVTS data on the involvement of formal education institutions and the use of certification to assess the benefits of training are discussed in Chapter 4.

3 Why do enterprises train?

Understanding the reasons why firms provide training rather than adopting alternative strategies, and more critically, the factors limiting training provision, is of paramount importance to design appropriate incentives to foster learning in enterprises. It is also crucial to study which groups of employees receive more training than others, and why this is the case, as there might be a role for public policy in reducing these differences. This chapter presents existing and new evidence on the main reasons and benefits of training provision by enterprises, on the obstacles to training provision, on the groups of employees that are trained more than others, and on the strategies other than training that firms adopt to address skill needs.

In Brief

Why do enterprises train?

Firm-provided training has many important benefits, both for the firm and for its employees. For an enterprise, training leads to increases in productivity and profitability. For the employee, it translates into higher wages and better career prospects. New evidence from the case studies shows that the main motivation for firms to train their employees is actually not directly related to firm performance but is to comply with legal requirements regarding health, safety and security training. Reasons more directly related to firm performance, such as the need to stay competitive or to engage employees, are also cited as important drivers of firm-provided training but come second.

At the same time, enterprises face a number of constraints limiting the amount of training they can offer. While the economic literature has mainly focused on external obstacles hindering training provision, such as the introduction of minimum wages, or the rise of non-standard forms of work, evidence from quantitative surveys shows that internal factors, such as financial and time constraints, matter to a large extent. Evidence from the case studies shows that lack of time in particular appears to be a key impediment to training provision, and provides detailed insights on what this obstacle means in practice.

As alternative to training, enterprises mainly adopt two strategies to address their skill needs: either they hire individuals with specific competences, or they outsource the activity for which there is a skill gap. The choice between training and these other options is driven by cost considerations, as highlighted by the existing literature, but also by a number of internal and external factors, such as the specificity and level of skills needed, labour market tightness, and expected duration of the skill need, as evidenced by the new data stemming from the case studies.

Reasons for employees to train differ starkly across groups of individuals. Existing evidence from the research literature has identified precisely which employees tend to train more than others: younger employees, those with higher skills and higher wages, as well as those under a permanent contract. New evidence from the case studies largely corroborates these findings but also shows that employees' specific position and role in the company matters at least as much as demographic characteristics to explain training participation. More specifically, employees in office positions or subject to legal requirements, those working in specific sectors, high-skilled employees, and new hires receive more training than other groups. Such differences stem from both higher benefits and lower costs of providing training to these employees.

Introduction

Enterprises acknowledge various benefits from providing training, ranging from increased profitability and performance to lower turnover. These benefits vary across different groups of employees. Yet, firms also face a number of obstacles that can substantially limit training provision. When they cannot train, they consider alternatives, including hiring or outsourcing to address skill gaps.

Understanding the reasons why firms provide training rather than adopting alternative strategies, and more crucially the factors limiting training provision, is of paramount importance for policy makers to design appropriate incentives to foster learning in enterprises. It is also crucial to study which groups of employees

receive more training than others, and why this is the case, as there might be a role for public policy in reducing these differences.

This chapter presents existing and new evidence on the reasons why enterprises train, and why they do not train more. More specifically, it investigates (i) the main reasons and benefits of training, (ii) the obstacles to training provision firms encounter in practice, (iii) why some groups of employees train more than others, and (iv) how firms choose between different alternatives available to address skill needs.

Reasons and benefits of training

Firm-provided training presents many important benefits, both for the firm and for its employees. For an enterprise, training leads to increases in productivity and profitability. For the employee, it translates into higher wages and better career prospects. However, and despite an abundant research literature on the topic, a number of knowledge gaps subsist. While the benefits of training are well-known to researchers, it is not entirely clear whether enterprises are fully aware of them, and the exact reasons behind training provisions deserve more attention. New evidence from the case studies makes it possible to investigate the reasons why enterprises decide to offer training to their employees, and to explore mechanisms through which training affects productivity and firm performance.

Existing evidence on the reasons and benefits of training

Benefits of enterprise provided training

Existing research consistently shows that training increases **employee productivity**. For instance, Brunello and De Paola (2008[1]) show that training leads to increased literacy scores, and improved job performance (greater breadth of service quality, improved relations with customers, increased task efficiency). Georgiadis and Pitelis (2016[2]) find that employees' training has a positive impact on firms' labour productivity and profitability, and that this effect was stronger for employees than for managers.

These productivity increases result in **higher profits and improved firm performance**. Brunello and De Paola (2008[1]) show that improvements in outcomes at the individual level translate into better firm performance along several dimensions: The authors cite increased customer satisfaction leading to greater customer loyalty, better reputation and hence higher revenues; and reductions in wastage, errors, and time spent by supervisors monitoring and correcting work of their staff, leading to important cost savings. The positive relationship between training and firm performance is present for firms of different sizes, operating in various sectors, with varying degrees of technological intensity, and is stronger in countries with low performance orientation and low labour costs (Garavan et al., 2020[3]).

Training is used by firms to **increase their competitiveness** and, hence to escape or survive competition, especially in industries relying to a larger extent on workers' human capital (Heywood, Jirjahn and Pfister, 2019[4]).

At the individual level, productivity increases induced by training may in turn lead to **wage increases and job promotions**, and to **reduction in unemployment threats** (Fialho, Quintini and Vandeweyer, 2019[5]; Kluve, 2010[6]; Picchio and van Ours, 2013[7]). Regarding the impact of firm-sponsored training on wages, the most comprehensive study is the recent meta-analysis of 38 studies by Haelermans and Borghans (2012[8]) that finds an average wage increase of 2.6% for each occurrence of training. Returns vary for different types of training but also according to the research approach adopted: for instance, studies that take into account the fact that the best workers sort themselves into the firms that provide more training find smaller returns.

Training may also be viewed by firms as **a mean to retain employees and reduce turnover**. Indeed, training enhances organisational commitment and perceived organisational support, and this translates

into higher attractiveness and retention rates, and hence lower hiring costs (Frey, Buettgen and Pietsch, 2014[9]). There are exceptions, though: for instance, the economic literature on human capital theory shows that firms' provision of general training is strongly reduced when labour markets are perfectly competitive. Indeed, in this case, skills learned during general training can be easily applied in other enterprises (Becker, 1964[10]).

Training generates **spillovers at the industry level** and **wider social benefits**, but the evidence on these topics is less abundant. Some studies highlight positive impacts of employees' training on their colleagues and of managers' participation in training on their employees (De Grip and Sauermann, 2012[11]; Prada, Rucci and Urzúa, 2019[12]). Other works show that training fosters generic cognitive and personal development, facilitating self-management and reflection, and the development of resilience and grit through learning experiences (Feinstein and Hammond, 2004[13]). Several studies relate participation in training to improved health and well-being (attitudes, confidence, social capital, and health, mental health, stress, self-confidence, self-esteem) (Brunello and De Paola, 2008[1]; Panitsides, 2013[14]), social and political attitudes, participation in civic, political, and cultural activities (Ruhose, Thomsen and Weilage, 2019[15]).

Little is known however about the **differentiated impact of different types of training**. Indeed, most of the existing research takes an undifferentiated view of training (Field, 2011[16]). In particular, only limited evidence exists on the impact on wages and productivity of the various types of training targeting different skills. Training content varies a lot (see Chapter 2), but very few studies have examined the benefits or returns to training with different content. Professional training and some training targeting soft skills, such as project management and sales and marketing training, seem to deliver the highest returns for wages (Dostie, 2013[17]). Other studies have analysed the impact of very specific interventions, making it difficult to compare returns across types of training.

The literature has also dedicated limited attention to investigate the impact of class-room vs. on-the-job training. A study focusing on administrative-level Canadian data from 1999 to 2006 concludes that class-room training has larger short-term productivity returns than on-the-job training, but this is driven by the type of training provided (Dostie, 2013[17]). A large fraction of on-the-job training, classified as orientation for new employees, is not productivity enhancing. Furthermore, professional training has a stronger impact on wages and is more likely to be covered in classroom training. Once these factors are taken into account, the study finds that many types of on-the-job training are as productivity enhancing as classroom training.

Reasons for enterprises to provide training

In spite of this extensive body of evidence, researchers and policy makers still have a limited understanding of the reasons why firms choose to provide training (or not). One exception is a recent study focusing on micro and small companies (CEPS, 2020[18]) that shows that the main drivers for up- and re-skilling in those firms are related to **legal requirements**.

The European Company Survey can also shed some light on the issue, as it asks firms about the importance of four other reasons for providing training to their employees. In this survey, 96% of managers in establishments that provided some type of training said it is important for ensuring that employees have the skills they need to do their current job; 84% declared it is important for improving employee morale; 81% said it helps to increase the capacity of employees to articulate ideas about improvements to the establishment; 70% reported it is important to increase flexibility (Cedefop, 2020[19]). An econometric analysis of the ECS data provides a more detailed picture on the issue (see Box 3.1).

Box 3.1. Enterprise characteristics and main reasons for providing training

Econometric analysis of data from the European Company Survey 2019 (see Annex B for an illustration of the results and the methodology) provides additional insights on the relationship between several firm characteristics and the reasons why they provide training. The results show that:

- There is some degree of heterogeneity between firms in different sectors regarding the main reason behind training provision: firms in the Information and Communication sector are less likely to report flexibility and skill needs as important reasons, while those in accommodation and food services seem more likely to report innovation as an important motivation to provide training to their employees.
- Market strategies focused on customisation, better quality, and introduction of new products and services are all positively correlated with the different reasons for providing training, but the relationship is weak in most cases.
- The different High Performance Work Practices explain reasons driving training provision: workforce autonomy and performance pay being positively correlated to all four reasons (developing workforce flexibility, increasing workforce motivation, improving workforce skills, fostering innovation), teamwork being negatively correlated with flexibility as a main driver of training provision but positively related to the other three reasons.
- The relationship between technology adoption and the main reasons for providing training is not conclusive in general. The same is true for the correlation between other firms' characteristics (age, number of hierarchical levels, number of employees) and the four different reasons (not reported in the figure).

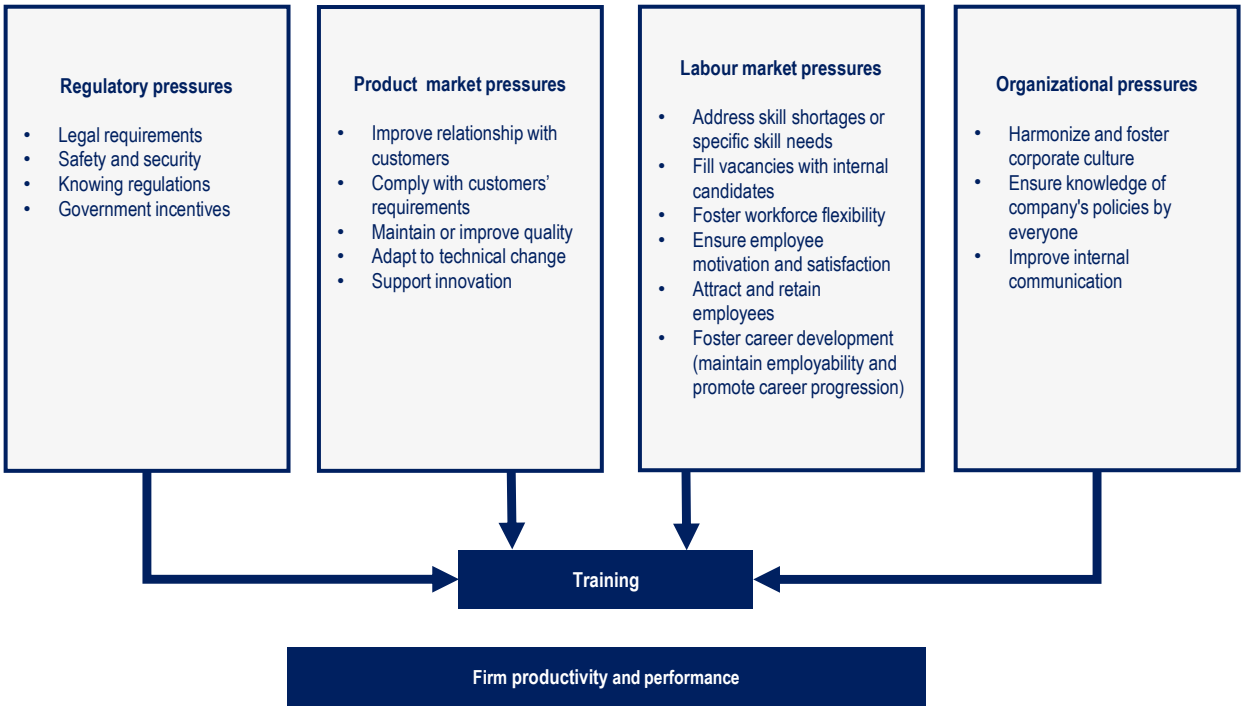
New evidence on the reasons and benefits of training

Thanks to new evidence from the case studies, it is possible to provide more details on why enterprises decide to offer training to their employees, and to explore mechanisms through which training affects productivity and firm performance. Compared to the ECS, the present study adopts a bottom-up approach and is able to identify a broader range of reasons behind firm training provision. It also allows for an exploration if any important factors have been overlooked by the existing literature.

Key reasons driving training provision

The **most important reasons behind training provision** as reported by firms in the sample can be broadly classified in four categories (Figure 3.1). Regulatory pressures come first, followed by pressures faced by firms in the product and labour markets. Product and labour market pressures can be due to mainly external factors (e.g. necessity to comply with customers' requirements, attraction of new employees) or internal forces (e.g. support innovation, address specific skill needs). More marginally, several firms reported reasons stemming from purely internal, or organisational, pressures. These different categories are explored in more detail below.

Figure 3.1. Reasons for training provision in enterprises



Note: Interviewees were asked to describe in detail the main reasons they provide training to their employees.
Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

First, **regulatory pressures** are a major driver of firm-provided training. Almost half of the firms interviewed declare that they provide training to comply with legal requirements regarding health, safety and security training, and about a third of firms in the sample cite it as one of the most important reasons. These trainings are often course-based due to the need to obtain a certification (see also Chapter 2). Legal requirements are especially important for firms operating in manufacturing sectors, both high-tech and low-tech, as evidenced by a manufacturer of wood products in Ireland.

> *Given the nature of the business' activities' in manufacturing and construction, training is primarily offered to ensure ongoing compliance with various Health and Safety legislations and required practices.*
>
> *Manufacturer of wood products, Ireland*

In service sectors, regulatory pressures also play a role. Indeed, several companies in the sample declare that they provide training to their employees to ensure that they know existing regulations. This is for instance the case for firms operating in the financial sector. Providing training to respond to government incentives also falls in this category, albeit very few firms cited this as a reason behind training provision.

These mandatory trainings are more formalised (see also Chapter 2) and they seem more burdensome for firms and employees. What is more, evidence from the case studies suggests that some employees do not consider these actions to be "proper training". Some companies report that the amount of mandatory training is actually an obstacle to providing other types of training, that could, according to firms, be more appropriate and productivity enhancing.

Pressures faced by firms in the product and labour markets come second in terms of importance. Both pressures seem equally important reasons for firms to provide training: about a third of firms in the sample report only pressures in the product market as drivers of training provision, a third report pressures in the labour market only, and a third say both forces as drivers of their decisions.

Product market pressures relate to the need for firms to stay competitive vis-à-vis other firms proposing similar products or services. Training seems to be crucial to enable them to sustain their strategy in their product market. A number of firms stress the importance of customers' satisfaction. Soft skills (in particular communication) training can be a way to improve relationship with clients. Other types of training are sometimes necessary to comply with their requirements. For instance, a large company active in the catering sector in Ireland declared that training is necessary to meet customer expectations and hence is crucial to increase the likelihood of securing future business. Training may also be necessary to maintain or improve product quality, and is in some cases an integral part of a company's approach to quality management. Finally, training can also be used to help the firm and its employees adapt to technological change and introduce or foster innovation.

> *The main reason for having training is related to the final goal of keeping high qualitative standards of the product, and giving to all employees the possibility to do this having all the possible instruments and knowledge. In this specific market, the quality standards of the product should be as high as possible.*
>
> *Large publishing company, Italy*

Labour market pressures take different forms. Reasons in this category are listed in Figure 3.1 and range from company-focused to more employee-oriented pressures. First, a number of firms reported providing training to their employees to address specific skill shortages or specific skill needs. Training is also sometimes offered to accompany career moves within the firm, when the candidate needs upskilling. In addition to filling job openings, firms also provide training in order to benefit from a more adaptable workforce and to allow job rotation. For example, a medium-sized high-technology manufacturing company in Italy trains its employees to make sure they can replace their colleagues on leave.

> *The company is engaged in realising annual training plans designed to provide expertise on the different production lines to the employees, in order not to expose the company to the risk of not having trained and expert staff to place on a specific line in the case of absence of the operator.*
>
> *Medium-sized high-technology manufacturing company, Italy*

Employee motivation and satisfaction is another important benefit of training reported by firms, and can translate into employee retention. Training can also be viewed as an attractive feature for job candidates. Finally, several enterprises declared that one important reason to provide training was to permit career development of their employees, by maintaining competences and hence employability, or by increasing employees skills and hence foster career progression. Employee retention and career progression are the two main drivers of training provision in a large knowledge-intensive service company in Ireland.

> *The main reasons for providing training relate to being able to better retain employees and their skills. Training is also offered to address specific needs identified within its wider strategies: for instance, to encourage more female representation in management and senior roles in the business. A training for female leader's programme has a clear impact on the business' strategy to encourage more diversity within its leadership and senior management.*
>
> *Large knowledge-intensive service company, Ireland*

It is notable that service sector firms are more likely to cite product market pressures, while firms in manufacturing sectors, larger firms, and firms in rural areas are more likely to cite labour market pressures.

Finally, training may also be organised to respond to **organisational pressures**, to improve internal communication and promote a harmonised corporate culture. As opposed to the other pressures mentioned above, which are mainly externally driven, these reasons are purely internal. This is the case for instance in a medium-sized family firm in Italy.

> *The other key type of training carried out ("culture") is related to developing a shared set of values, attitudes, mission, in the company and is strongly driven by the family vision. This type of training has the key objective of improving communication, improving the set of shared values, the internal "atmosphere".*
>
> *Manufacturer of rubber and plastic products, Italy*

Main obstacles limiting training provision

Enterprises can experience a number of obstacles hindering training provision. Existing evidence provides an overview of different external and internal constraints that explain why companies do not provide (more) training, while new evidence from the case studies sheds light on what these obstacles mean in practice. The majority of enterprises in the sample cited firm internal, rather than external obstacles, and in particular emphasised time contraints as key obstacle to training.

Existing evidence on obstacles

External factors limiting training provision

While the literature on benefits of firm-provided training abounds, evidence regarding constraints and obstacles to training participation faced by enterprises is much scarcer and less conclusive. A recent study published by the European Investment Bank (Brunello and Wruuck, 2020[20]) discusses a number of **institutional factors** that could, in theory, hinder firm-training provision, such as the introduction of minimum wages, or the rise of non-standard forms of work. In practice, the hypotheses are not always validated empirically. For instance, higher employment protection (including higher firing costs) should in theory increase firms' incentives to provide training, by raising tenure and hence increasing the time span to reap training benefits. However, higher protection may also lead firms to shift to temporary contracts and thereby provide less training (Bratti, Conti and Sulis, 2021[21]). Similarly, there is no consensus regarding the effect of minimum wages on training, with results varying both across and within countries. One detrimental factor that seems to be less contested is the recent diffusion of non-standard employment practices: employees under such working schemes are less likely to be trained. However, the literature on this topic is still nascent, and more evidence needs to be collected.

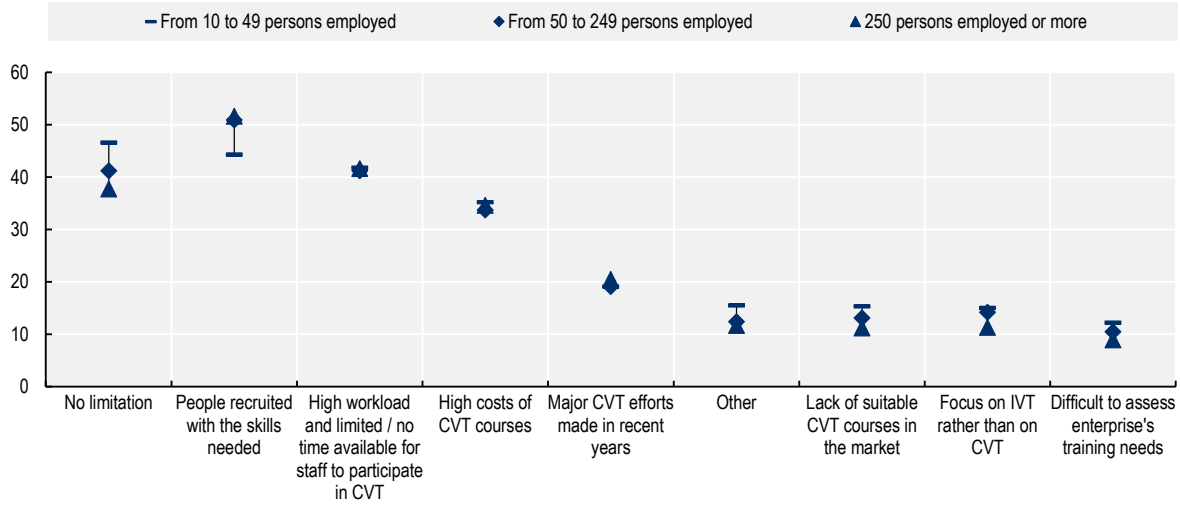
Internal constraints faced by firms

The **cost of training** is a key obstacle to the provision of (more) training. It is important to note that cross-country differences in financing constraints are important, but explain only a limited share of the observed heterogeneity in training investment across European economies (Brunello and Wruuck, 2020[20]).

Another important internal obstacle reported in existing studies and surveys is **the lack of time**. For instance, a Canadian study evaluated the impact of workplace essential skills training on a number of firms and workers outcomes. The project offered up to 40 hours of training for each employee with wage compensation to employers for half of the release time, up to a maximum of 20 hours. The study finds that only few employers maximised this subsidy by providing the full amount of training available. This was particularly – although not only – true for smaller firms (counting less than 20 employees). The study thus concludes that the amount of release time that employers can make available, given their current business demands, is an important barrier to training. Subsidies to cover costs related to employees' absence do not seem sufficient to incentivise firms to provide more training, and alternative approaches that better address workplace constraints should be explored (Dowie et al., 2014[22]).

Figure 3.2. Factors limiting the provision of CVT

Percentage of enterprises reporting that the factor is an obstacle to provision of CVT, across EU-27



Note: This question on limiting factors was asked to enterprises that provided CVT courses or other forms of CVT for their persons employed during 2015. Similar results are obtained when considering the reasons why some enterprises do not provide any CVT.
Source: Eurostat, CVTS 2015, [trng_cvt_03n2]

Box 3.2. Enterprise characteristics and time constraints

Econometric analysis of data from the European Company Survey 2019 (see Annex B for an illustration of the results and the methodology) provides additional insights on the correlation between several enterprise characteristics and the probability that it gives priority to workload and work schedules over training. The results show that:

- About a third of enterprises in the survey declare that participation in training and professional development activities is only possible if workload and work schedules allow for it.
- Enterprises in the financial sector, and those performing professional, scientific and technical activities are less likely to report workload as an obstacle, as are firms whose product market strategy are based on quality or the introduction of new products. Similar conclusions can be made for firms operating with autonomous teams or using data analytics. One possible explanation is that these firms tend to be more flexible in general and hence are able to adjust their work schedules more easily, or that training their workforce is more important for them and is given priority.

This finding is corroborated by results from the CVTS (Figure 3.2). Indeed, time and cost constraints are cited as prominent factors limiting the provision of training in the workplace. Time constraints are further investigated using ECS 2019 data; results are reported in Box 3.2. Other reasons (such as the difficulty to assess needs and the lack of suitable training offer) appear to play a minor role. Importantly, there is very little heterogeneity in the obstacles reported by firms of different sizes. It is important to note that an important share of respondents declare that they do not provide further or any training because they do not need to, and hence report no particular obstacle. This is because existing skills in the enterprise correspond to the needs, because they recruit people with the right skills directly, because they already

invested heavily in continuous vocational training, or because they prefer focusing on initial rather than continuous training.

Finally, and as foreshadowed in Chapter 2, the literature puts a strong emphasis on **poaching concerns** as obstacle to training provision. Seminal work by Becker (1962[23]) argues that enterprises might not provide training if they are concerned that their employees might leave for other firms. These poaching concerns are problematic especially in the case of general training, and when labour market are perfectly competitive. It is therefore not clear whether firms really consider employee turnover as an obstacle limiting training provision in practice.

New evidence on obstacles

The qualitative evidence collected in the context of this project allows an in-depth understanding of the obstacles faced by enterprises to offer training to their employees. Thanks to this new data, it is possible to understand what the constraints reported in different quantitative surveys mean in practice. In particular, this subsection sheds light on the reasons why lack of time remains an important barrier for many firms. The data also helps understand if any constraint has been overlooked in existing research, and to study what firms' characteristics and context are associated with different obstacles. Table 3.1 summarises the different types of obstacles faced by firms interviewed for the qualitative analysis and their prevalence in the sample. The reminder of this subsection discusses each precise obstacle in more details.

Table 3.1. Types of obstacles limiting provision of training by enterprises

Type of obstacle	Precise obstacle	Incidence in the sample
Time constraints	Lack of time to participate in training	High
	Lack of time to organise training	Medium
Financial constraints	High training costs	Medium
Constraints related to employees' attitudes or skills	Negative employees attitudes	Medium
	Negative management attitude	Low
	Low levels of employees' skills	Low
Planning constraints	Absence or inadequacy of vision, plan, processes	Low
	Difficulty to assess skill needs	Low
Supply constraints	Difficulty to find suitable training offers	Low

Note: Interviewees were asked to describe in detail the main obstacles limiting training provision. In the majority of enterprises, answers given by the different types of interviewees do not contradict and the analysis was thus conducted pooling the answers of the different respondents for each firm. High incidence means that more than 60% of enterprises interviewed report this obstacle; medium incidence corresponds to an obstacle cited by 20-60% of enterprises interviewed; low incidence for an obstacle cited by less than 20% of enterprises.
Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

Time as key constraint

Lack of time is by far the most prominent obstacle reported by firms (named by two out of three interviewed enterprises). This is the case for firms of various sizes and operating in different sectors. The majority of enterprises mentioning this constraint declare that workload and work schedules make it difficult for some employees to participate in training. In practice, firms in the manufacturing sector often give priority to production and to the fulfilment of orders over anything else, including workforce development and training. Some respondents recognise that freeing up time to train could lead to important benefits, but state that finding the right balance between **short-term production concerns** and longer-term training needs is challenging. This seems to be especially important for high-growth firms, as exemplified by a manufacturer of transport equipment in Austria:

> *I think the critical factor is time: because we are growing so fast and because growth is also the company's goal, many things have to happen quickly and the pressure is already very high on employees in certain areas.*
>
> *Manufacturer of transport equipment, Austria*

Some firms have also adopted a **rigid organisation of production**, including for instance continuous production schedules and shiftwork, that does not allow employees to take part in training during their working time. In these enterprises, training is associated with output losses not only for the employee undertaking training, but also for the entire team. One way to overcome this barrier reported by one interviewed company is to concentrate training activities in periods of lower production levels. During such periods, instead of asking employees to take leave, the company organises training courses.

For firms in the service sector, **deadlines and the need to deliver on time** are often reported as a priority. Employees are sometimes made responsible for the organisation of their own training and they are encouraged to find time to attend courses themselves, on top of their work assignements. **Travel time** to training centres constitutes another important barrier, particularly for companies located in rural areas, where training offers are scarcer.

> *Training could certainly be more, but that is a time problem; employees are already very stressed, so it is important not to overstretch the bow.*
>
> *Medium size knowledge intensive service company, Austria*

When companies report time as an obstacle, they not only mean that it is difficult to find time for employees to participate in training, but also to find **time for human resources or management to plan training**, especially when replacements need to be identified and organised, as mentionned by a manufacturer of electrical equipment in Ireland.

> *The biggest impediment to providing training is purely of time – both in investing the time in employees but equally having to release them from work or projects and having to either forego or substitute an employee's absence to attend any training during normal working hours.*
>
> *Manufacturer of electrical equipment, Ireland*

Other obstacles to training provision

The second most cited type of obstacle relates to **training costs**, direct (to cover for training programmes fees) or indirect (to cover for productivity losses). Direct costs can be particularly problematic when firms rely on external providers. However, it is important to recognise that this obstacle is relatively less important compared to the lack of time. Indeed, only 20% of firms in the sample report costs as a major impediment, and it does not vary with firm size, sector, or financial situation. It is however important to note that time and cost obstacles are actually very closely related in that time is not an obstacle when firms can afford short term output losses or hire replacements.

> *More training would be beneficial for the company as an investment to their employees. The main obstacles to more training include financial opportunities (staying within the training budget).*
>
> *Medium size low-technology manufacturing company, Estonia*

A third set of obstacles encountered by companies relate to the **attitudes and skills of employees and managers**. In particular, **negative employees' attitudes** seem to represent an issue in several firms in the sample. Certain individuals may be reluctant or even refuse to take part in training activities, because they are not aware of the benefits, or are afraid of change. This is often the case of more experienced and older employees, and especially – but not limited to – training for digital skills. Furthermore, in several instances, respondents declared that the content of compulsory training is not interesting, or that

employees would not define it as proper training. The low engagement of employees is mentioned for instance by a large high technology manufacturing company in Estonia.

> *One obstacle is the low interest of employees in learning new things due to their relatively old age. When a new department was recently set up, all employees were offered the opportunity to learn a new job, but it was almost impossible to find people to do it. The company recruited new people through a staffing company. Employees feel that they can do their current job, it is safe, they get their workloads, their efficiency bonuses, but in a new job they do not know what needs to be done.*
>
> *Large high technology manufacturing company, Estonia*

This is particularly problematic in enterprises where access to training mainly relies on employees' self-initiatives. Indeed, as discussed in Chapter 4, approximately one in five of the enterprises interviewed rely on a bottom-up approach to accessing training, whereby individuals are responsible for the identification of their own training needs and the selection of appropriate training actions. In these enterprises, less motivated individuals may not take the necessary steps to participate in training. As emphasised by several enterprises in the sample and as exemplified below, measures to raise employees' awareness around training benefits might be needed.

> *It is necessary to raise the awareness of the employees and show them the benefits, as there is often a lack of self-initiative.*
>
> *Medium size knowledge intensive service company, Austria*

One respondent emphasised that adapting training format to different learners is key to engage less motivated employees in training activities. Indeed, some employees are less receptive to classroom training, but more open to on-the-job training.

> *We have found over the years that some employees do not like to go on training courses but tend to be more open to on-the-job training. We attribute this to the method of teaching and the importance of understanding the type of learner each individual is. With the appointment of the head of HR in the last few years, training and learning has been 'revolutionised'. What we mean by this, is that the approach taken by HR was to understandg the learning needs of staff by identifying the type of learner they are and which teaching methods are most aligned to that style of learning.*
>
> *Large low knowledge intensive service company, Ireland*

Attitudes of line managers are also reported as constituting an obstacle to training in several instances. Indeed, some line and middle managers do not encourage, and in some cases can discourage or even prevent employees to take part in training. In this respect, there seems to be some disconnection between middle-level management and senior management, the latter stating that training should not be the sole responsibility of the HR department, and that department and line managers should also encourage training instead of acting as gatekeepers (on this aspect, see also Chapter 4).

> *There are examples where new employees are recruited and they have superior skills or additional skills to the site manager. Sometimes, the manager feels intimidated and can block that person from progressing. We are very quick to observe this and push managers to see this person's skills as an asset and not a threat.*
>
> *Large low knowledge intensive service company, Ireland*

Finally, **existing skills and education levels** of employees can constitute an important obstacle. This is for instance the case when it comes to the language skills of some employees, especially when their mother tongue is different from the official language in the country. One strategy to address this difficulty reported by one firm in the sample is to rely on employees with a good understanding of the local language to participate in the training themselves, translate training content, and train their colleagues in turn. Several firms also reported that heterogeneity in employees' background and skills represents an

additional difficulty, since a suitable training offer has to be found for employees in the same position but with different levels of skills and education.

> *Russian speaking employees are sometimes in a worse situation as most of the trainings provided are in Estonian language. As the company is located in an area with many Russian speaking people this problem is somewhat relevant there. One solution for that problem that the company has come up with is that the Estonian speaking people participate in the training and after that carry out the internal training with the same content in Russian language to the Russian speaking colleagues in the company.*
>
> *Medium size knowledge intensive service company, Estonia*

A number of other obstacles are mentioned by respondents, although much less frequently than the obstacles described above. First, several firms declare that **finding suitable training offers** is particularly complicated, because they are located in rural areas, or because they consider the quality or content of available training offers not satisfactory. Employee representatives also mention in several instances that a **lack of appropriate vision, plan, or process** can hinder training provision, and this is sometimes corroborated by the management or HR respondent. For example, the absence of a workforce strategy makes it difficult to anticipate or assess training needs. The process between application and registration in training may also be too long and the training may be no longer necessary.

Several potential obstacles widely discussed in the literature are less frequently mentioned by respondents or not at all. Very few enterprises declared that fear of poaching limits training provision, and no interviewee mentioned that a lack of information on training options constitutes a challenge. It is also interesting to note that approximately 10% of interviewed firms declare facing no obstacle in providing training, including because there is no need to provide more training or because training is not a priority. When they see no need for more training, some firms are actually reluctant to allow employees to participate in training, even if cost is low, as they fear to have an overqualified workforce and to create unmanageable expectations among employees.

Alternatives to training

Enterprises can adopt two alternative strategies to training to address their skill needs: they can either hire individuals with specific competences, or outsource the activity for which there is a skill gap. The choice between training and these other options is driven by cost considerations, as highlighted by the existing literature, but also by a number of internal and external factors, such as the specificity and level of skills needed, labour market tightness, and expected duration of the need, as evidenced by the new data stemming from the case studies.

Existing evidence on alternatives to training

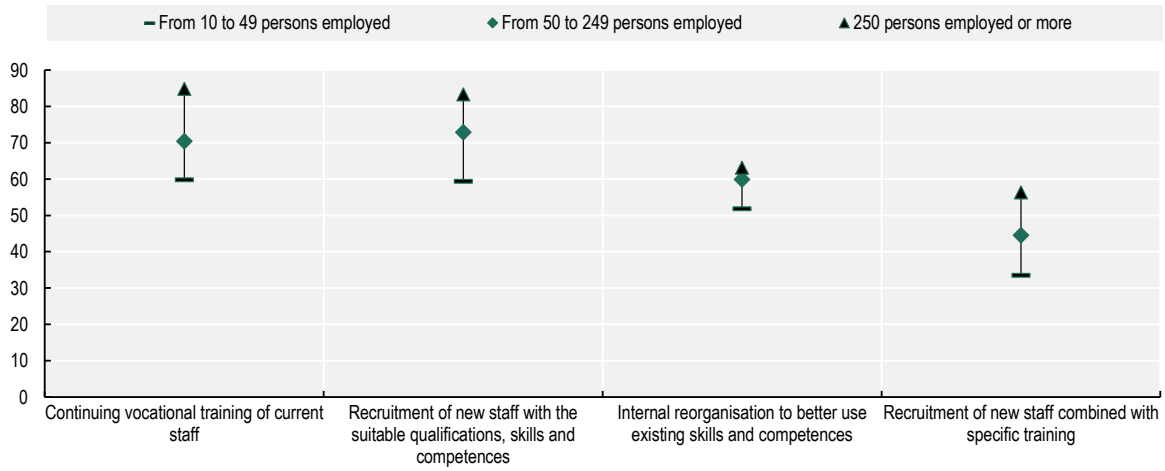
The academic literature on the alternatives to providing training, and the factors associated with the type of alternative chosen by firms, is relatively scarce and the available evidence focuses on one particular alternative -hiring- and one particular type of training – apprenticeships. Blatter et al. (2015[24]) highlight the importance of hiring and training costs to explain which alternative is chosen, and finds that a 1 standard deviation increase in average external hiring costs increases the number of internal training positions by more than half of a standard deviation. Mühlemann (2016[25]) shows that there is a large heterogeneity with respect to costs and benefits of apprenticeship training across countries and occupations, but also within occupations. They also argue that labour mobility is a critical factor to explain training provision: when labour mobility is high, long-term benefits are lower and short-term benefits must be higher to exceed training costs for firms to favour training over hiring.

More evidence on different alternatives adopted by firms to address skill gaps can be retrieved from the CVTS. Figure 3.3 shows that the two most widely reported reactions of firms when confronted to skill needs

are to train current employees and to recruit employees with the required skills (more than two-thirds of firms). The third reaction consists in an internal reorganisation to better use existing skills of current employees. The least preferred option, albeit still reported by approximately half of the enterprises, is to recruit new employees and offer them training to fill their skill gaps. Larger firms are systematically more likely to report any of these options, even though the difference between firm size is smaller for the use of internal reorganisation. Yet, it remains unclear whether these options are clearly substitutes or rather complements, and when and why firms choose one option over the others.

Figure 3.3. Alternatives adopted by firms to address skill gaps

Percentage of enterprises reporting adopting the alternative to address skill gaps, across EU-27



Source: Eurostat, CVTS 2015, [trng_cvt_11s].

New evidence on alternatives to training

The qualitative evidence collected in the context of this study increases the understanding of what alternatives to training firms favour, and the reasons behind their choices.

Hiring is the most popular approach to ensure that the enterprise has the skills required to perform its activities, according to the enterprises in the sample (>50%). In most cases, the decision to train or hire is managed on a case by case basis by firms, depending on need and availability of skilled people. Cost seems an important factor to explain which alternative is chosen. Yet, few enterprises having a systematic approach to it.

Several firms still report that training is prefered over hiring, notably because it is usually a cheaper option. Hiring is reported as a suitable alternative to adress very precise needs: when specific competences are needed, for particular projects or occupations. This is the case for instance in a manufacturer of rubber and plastic products in Ireland.

> *The business recognises that it can meet skills needs amongst its workforce through carefully targeted recruitment of new employees who can come with ready formed skills sets and capabilities. However, this is only relevant to employees in managerial roles – the bulk of employees are in roles that require skills that relate to specific pieces of machinery and manufacturing processes which are harder to transfer from other environments. As such, the enterprise is very limited in the alternatives it can access to training to meet skills needs.*
>
> *Manufacturer of rubber and plastic products, Ireland*

In some cases, hiring is less cumbersome than training. Hiring also seems to be faster than training, and hence can be used to fill skill gaps within a short timeframe. This is the case for instance when labour market conditions make it easy to hire individuals with the right skills.This is also the case when skill requirements are low or not specific, as in a low knowledge-intensive services enterprise in Italy.

> *There is abundance of people who offer to work in this company and the company is able to select those who already match best what is needed in terms of experience and skills. Moreover, the low-skill requirements do not make it difficult to find employees.*
>
> *Low knowledge-intensive services enterprise, Italy*

In general, **hiring** is viewed by firms **as a complement to training**, and not a substitute. In several instances, hiring is used by companies not only to adress skill gaps but also to bring new talents and ideas to the company. Furthermore, some training is still required for the new employees. One medium-sized high technology manufacturing company reported that when very specific skill needs arise at short notice, due to one employee leaving the company for instance, the firm will look for talents among the competitors,, in order to avoid the issue of training the new hire. The experience of a large high technology manufacturing company below examplifies the complementarity between training and hiring.

> *There are no ready-made employees to recruit, and the company has to offer additional skills itself. This is especially true for production workers, for whom comprehensive training programs have been developed, but also for engineers who need very narrow specialisation. The settling time in the office is shorter, but there is still a lot of company-specific knowledge – product specificity, business specificity. Even if the employee has previous work experience, the role is not the same as it may have been with the previous employer.*
>
> *Large high technology manufacturing company, Estonia*

Outsourcing is another approach to satisfy the skill needs of enterprises. About one-third of firms in the sample report to outsource some of their activities. Outsourcing is mainly used for skills that are not at the core of the firm's business; it allows them to focus on their core activity. This is the case for instance for digital skills, for marketing or logistic activities, or to implement new techologies, depending on the firm's business. Frequency of the particular skill need plays an important role: companies choose to outsource when the competence need is not large enough, or does not materailise often enough, so that it would not be cost effective to build the competence internally. This is best illustrated by the experience of a large high technology manufacturer in Estonia.

> *Outsourcing depends on how often a missing competence is needed. Is it needed daily or once a month? What are resources and what is reasonable? It might be reasonable to outsource some skills in some time, but later not and then it might be more reasonable to train own employees to do these things.*
>
> *Large high technology manufacturer, Estonia*

Outsourcing or hiring external consultants seem to represent suitable alternatives especially when recruiting is challenging, for instance because of the company's location, as it is the case for a large low technology manufacturing company in Austria.

> *The central strategy is to hire the employees and to cover the need for competencies internally. Otherwise, external consultants are recruited. According to the manager, the company's location is sometimes a disadvantage in finding personnel. Currently, the main topics are digitisation and big data, where specialists are hard to find. The company also uses technological solutions, and therefore, uses a mix of different strategies to perform its entrepreneurial activities.*
>
> *Large low technology company, Austria*

Groups of employees training more than others

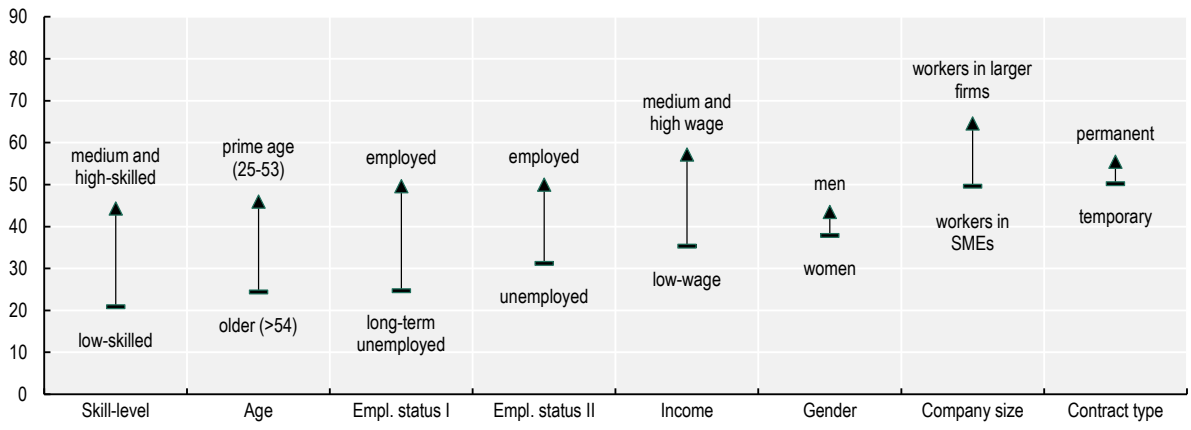
There exist stark differences in training participation between different groups of employees. Existing evidence has identified precisely which employees tend to train more than others: younger employees, those with higher skills and higher wages, as well as those on a permanent contract. New evidence from the case studies largely corroborates these findings and looks at some employees' characteristics overlooked by the literature, finding that an employee's specific position and role in the company matters at least as much as its demographic characteristics to explain training participation. Companies declare that such differences stem from both higher benefits and lower costs of providing training to these employees.

Existing evidence on differences in training participation

The literature is in general remarkably clear on the types of employees that tend to train more than others (Dostie, 2020[26]). For instance, those on a permanent contract and in managerial positions receive more training (Ferreira, de Grip and van der Velden, 2018[27]; Cabrales, Dolado and Mora, 2017[28]). Younger and higher skilled employees also train more, as is also the case for those receiving higher wages in general (Fleischmann, Koster and Schippers, 2015[29]; MARTIN et al., 2013[30]; OECD, 2019[31]). Figure 3.4 uses data from the Survey of Adult Skills in 2012 and 2015 to show differences in participation rates between groups of individuals. Small gaps are found between men and women, and between workers employed in firms of different sizes. Large gaps, up to 25 percentage points, are instead observed between medium and high-skilled and low-skilled individuals, younger and older individuals, employed and unemployed individuals, medium-high wage and low wage individuals, and to a lower extent between permanent and temporary employees.

Figure 3.4. Gap in participation by socio-demographic characteristics

Percentage of individuals participating in job-related training, OECD average



Note: Job-related formal and non-formal learning; the baseline varies across categories, e.g. skill-level refers to all adults, while contract type refers to employed adults only. Low-skilled refers to adults scoring at Level 1 or below in literacy and/or numeracy in PIAAC; low-qualified refers to adults not holding an upper secondary qualification; long-term unemployed are defined at those who have been unemployed for 12 months or more; low-wage refers to workers who earn at most two-thirds of the national median wage; high risk of automation refers to adults in jobs with at least 70% probability of automation; temporary refers to workers in temporary contracts; workers in SMEs refers to workers in enterprises between 1 and 249 employees.
Source: Survey of Adult Skills (2012, 2015), https://www.oecd.org/skills/piaac/.

A recent study (CEPS, 2020[18]) nuances these findings, more specifically regarding the difference in training propensity for employees with different education backgrounds: the study finds no systematic difference in training propensity for different groups, but instead highlights that the types of learning activities offered to these employees differ.

Other studies look more specifically at the difference in training propensity between migrants and native-born employees and find a gap in favor of the latter (Barrett et al., 2012[32]; Hum and Simpson, 2003[33]; Van den Heuvel and Wooden, 1997[34]). This training disadvantage faced by individuals with a migrant background is both due to the fact that they are employed in enterprises that provide less training in general, and to the fact that they are offered less training by their employer compared to their non-immigrant colleagues. An interesting finding from this literature is that migrants perform especially worse when they come from a country speaking a different language than the host country.

In general, it remains unclear why some groups of employees train more while others train less, and whether these differences in training intensity are justified or desirable. Cost-benefit considerations of training would suggest that the observed variation might be due to differences in training costs or in training returns. Indeed, it seems that high-skilled individuals have lower training costs (Blundell et al., 2005[35]). However, some evidence suggests that returns are in fact higher for blue-collar rather than white-collar workers (Colombo and Stanca, 2014[36]) and employees rather than managers (Georgiadis and Pitelis, 2016[2]). However these findings are based on a limited number of studies, and more research is needed in this area.

New evidence on differences in training participation

The qualitative evidence collected in the context of this study provides more details on what groups of employees have better access to training, looking not only at individuals from specific demographic groups (younger *vs* older employees, higher-educated *vs* lower-educated employees, etc.), but also at people in specific jobs, an issue that has received much less attention in the literature. It can also shed light on the situation of employees in disadvantaged position in the labour market, for example those in jobs at risk of automation or those with low skills. Furthermore, the qualitative evidence also improves the understanding of *why* some groups of employees train less.

In general, employees in specific positions, and new and younger employees, train more than their colleagues. The list of specific groups of employees training more than others, and the reasons why this is the case, are summarised in Table 3.2, and more details are provided in the rest of this section.

Table 3.2. Groups of employees receiving more training and main reasons

Specific groups	Reasons
Employees in specific office positions: • Sales • Human resources • Administrative support • Management • IT • Client service departments	Higher needs
	Higher returns
	Strategic importance of the roles
	Higher opportunities for career progression
	Lower costs related to the organisation of training
Employees in specific sectors: finance and IT	Higher needs
High-skilled employees	Higher needs
Employees subject to legal requirements	Higher needs
New and younger employees	Induction programmes
	Lower costs related to the organisation of training

Note: Interviewees were asked to describe whether some groups of employees train more than others, and why.
Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

Access to and participation in training primarily varies based on the position of individuals within the enterprise, and less directly based on socio-demographic characteristics, according to the interviewees. In particular, **employees in office positions**, including in sales, human resources, administrative support, management, IT, and client service departments, **tend to train more**. Firms report that this is because they need more training in general, without necessarily mentioning what type of training is needed Interviewees also suggest that training is likely to have a greater impact for these employees, both in terms of firm and individual outcomes. Some of these positions are strategically important for firms, which is why they invest in the human capital of these employees. This is the case for instance of management and IT departments. This is also the case for employees dealing with customers since the need to ensure customers' satisfaction is key for firm long-term profitability. Furthermore, firms report that employees in executive positions usually have more opportunities for career progression than employees in production. These **higher benefits of training** are mentioned for instance by a manufacturer of beverages in Austria, and by a manufacturer of transport equipment in France.

> *Sales representatives most often attend training courses (sales seminars, customer acquisition, and dealing with customers,...), because this area is strategically important for the overall success of the company.*
>
> *Manufacturer of beverages, Austria*

> *Executives and technicians train more than the rest of the employees. It is due to the fact that they have more proposals for evolution than the employees in production.*
>
> *Manufacturer of transport equipment, France*

Interviewees also believe that the **cost of training these employees is lower**, in particular regarding **indirect training costs related to the organisation of training**. Indeed, these employees are more likely to request training, and in general have more flexible schedules, even though objectives in terms of sales and deadlines remain important constraints. On the contrary, employees in production face a stricter organisation of work, including shift work, that prevents them from participating in training, and are sometimes less interested in improving their skills in general and their soft skills in particular. The advantage of flexible schedules for employees in the administration department is mentioned for example by a low knowledge-intensive services company in Estonia.

> *Administration might train more because of better access to trainings (more flexible schedule and working pattern allows more training).*
>
> *Low knowledge-intensive services company, Estonia*

Some interviewees suggest that **high-skilled employees** need more training because they have more skills to update. In **some sectors** (for instance finance and technology) regular updates are required and employees in these sectors attend more training sessions. Finally, **employees that have to take compulsory training** also train more, because of legal requirements. In several companies included in the sample, **new and younger employees train more** than others because they attend programmes for the induction to the enterprise, and are, in general, more motivated and eager to learn. For them, indirect training costs seem lower. Interestingly, while many firms claim they train because of regulatory pressures as discussed at the beginning of this chapter, regulation is not cited as a reason to train for the groups that train the most.

Given their fragile position in the labour market and their higher needs for (re)training, two groups of employees deserve special attention: **immigrant employees**, and **those at higher risk of automation**. Respondents mentioned employees with a low knowledge of the official language in several instances, and most companies indicated that this precludes them from attending other training courses. It can nevertheless be noted that few enterprises reported that these individuals actually receive more training

because they attend language classes. Results from the qualitative interviews therefore seem to suggest that language skills might be an important obstacle to offer training to immigrant employees, corroborating the existing literature. Regarding employees at risk of automation, very few enterprises declare having specific training for them. When this is the case (in two large high-technology manufacturers in Estonia and in Ireland), they offer programs either to ensure employees can work with new processes and systems, or to train them for an entirely new role within the firm.

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4 How do enterprises make decisions about training?

Enterprises invest in training because they believe that skilling their workforce helps them adapt to technological change, stay competitive, integrate new recruits and ensure health and safety of staff. To maximise these results, enterprises need to make the right decisions about training. This chapter presents existing and new evidence on how enterprises make decisions about training. It highlights where enterprises fall short of effective practices identified in the academic literature, thereby pointing to a need to build the capacity of enterprises and employees to make better training decisions.

In Brief

How do enterprises make decisions about training?

How training is designed, delivered and evaluated matters for maximising its impact on employees, enterprises and societies as a whole. The academic literature suggests that making effective training decisions depends on implementing well-designed processes and practices, but provides limited empirical evidence. The case studies show that having a (general) HR function has no correlation with the generosity of training provided. However, firms that appoint a dedicated training manager/specialist provide more training. If they have a say, employees influence decisions directly, rather than through employee representatives, although there are cross-country differences.

Training needs assessment is a key tool for enterprises to understand their human resource requirements and develop plans to meet these through training. However, empirical evidence on the adoption and effectiveness of needs assessment is limited. New evidence from the case studies shows that enterprises use a variety of methods and approaches to assess their training needs. Based on the methods used, it seems that needs assessment is more reactive than strategic in most firms. Market analysis, foresight and other future-oriented methodologies are rarely applied. Training needs are typically assessed by HR and management functions, while employees are involved in around half of the enterprises included in the sample. As above, the involvement of employees is usually direct, with employee representatives playing a limited role.

Enterprises are confronted with make or buy decisions when delivering training. Existing research has analysed this trade-off mainly at the theoretical level. New evidence from the case studies suggests that enterprises make decisions to outsource training based on the availability of expertise in-house, costs and the possibility to customise training opportunities. Programmes targeting soft skills and language courses are typically outsourced. Evidence from the case studies also suggests that most enterprises do not have a structured process for selecting external providers.

Understanding how individuals gain access to training is crucial, given the large inequalities observed in training participation among employees. The existing literature provides some theoretical considerations on the issue, but empirical evidence is scarce. New evidence from the case studies shows that line managers are often gatekeepers when it comes to giving individuals access to training. It also shows that enterprises apply three types of approaches when giving access to training: Training participation is imposed top-down in one in three enterprises in the sample, most frequently when it comes to obligatory training and in low-tech manufacturing and less knowledge intensive services. One in four enterprises adopts a balanced approach, in which managers and employees negotiate access. The remaining enterprises apply a bottom-up approach that allows employees to access training on their own accord. There is evidence that some firms with a high-skilled workforce are empowering employees through individual training budgets and self-directed online training.

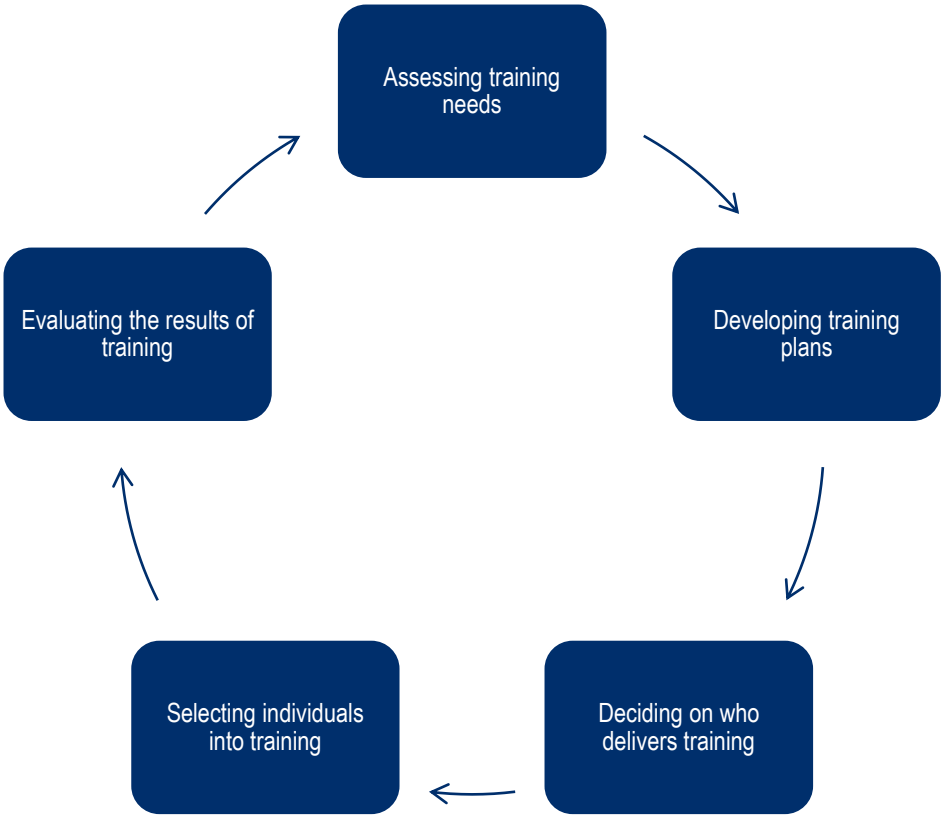
Enterprises use only basic methods to assess the outcomes of training, despite spending significant amounts of time and resources on its delivery. New evidence from the case studies suggests that most enterprises rely on informal feedback, employee surveys or observation at work to assess the results of training. Obstacles to training evaluation include the difficulties of measuring skills and lack of time. Some firms make a deliberate choice not to evaluate training, as they see a trade-off between monitoring and motivating employees.

Introduction

Organisations invest in training because they believe that skilling their workforce helps them adapt to technological change, stay competitive, integrate new recruits and ensure health and safety of staff (Chapter 3). Yet, to achieve these outcomes, enterprises and employees need to make the right decisions about training.

This requires them to adopt well-designed internal processes and practices to maximise efficiency and effectiveness at all stages of organisational decision-making. These steps include assessing training needs and developing training plans, deciding if training should be delivered internally or externally, followed by selecting individuals into training and evaluating the outcomes of training for individuals, teams and the enterprises as a whole (Figure 4.1). The research literature shows that the way training is designed, delivered and implemented matters to the impact it will have on employees, enterprises and economies as a whole (Salas et al., 2012[1]).

Figure 4.1. Stages of organisational decision-making on training



This chapter presents existing and new evidence on how enterprises make decisions about training. It highlights where enterprises fall short of the good practice identified in the academic literature, thereby pointing to a need to build the capacity of enterprises and employees to make better training decisions. It investigates i) who makes decisions about training in enterprises; ii) how enterprises assess their training needs and plan training; iii) when enterprises use external providers to deliver training; iv) how they make choices about which individuals receive training; and v) to what extent enterprises evaluate the results of training.

Actors involved in organisational decision-making

Training in enterprises is a shared responsibility of employees and employers. Involving both actors in organisational decision-making on training helps balance enterprise needs, which are often profit-related, and individual needs, which are typically career or life-course related.

On the employer side, it is intuitive that having dedicated management functions, such as human resource managers responsible for the planning, implementation and evaluation of training improves the training offer in enterprises. In fact, the lack of such functions in small and medium enterprises is frequently seen as responsible for the absence of strategic attention paid to training in SMEs (Cardon and Valentin, 2017[2]). Yet, evidence on the effect of such functions on training is limited. Looking at the role of employees, there is a well-developed body of research suggesting that employee involvement in organisational decision-making in general has a positive effect on work-place well-being and company performance (Eurofound and Cedefop, 2020[3]). Evidence on the effect of employee involvement on training is more limited. Recent studies found a positive relationship between different kinds of employee involvement – direct, indirect (through representative bodies) and mixed – and training provision (OECD, 2019[4]).

New data from the enterprises case studies can help shed light on these evidence gaps. The interviews provide detailed insights about who makes decisions about training in enterprises and if decision-making structures bear any relationship to training outcomes.

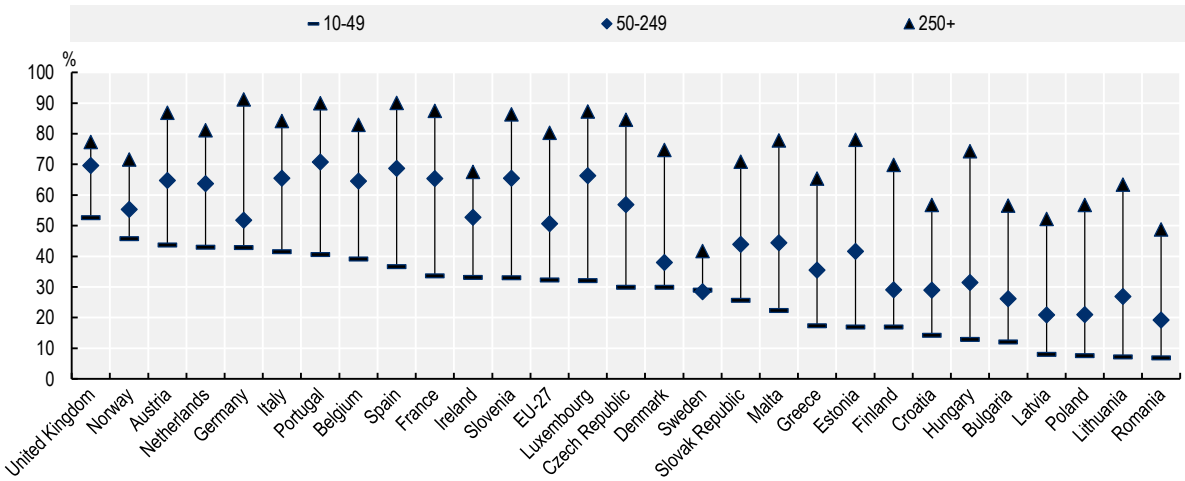
Existing evidence on who makes training decisions

Dedicated human and financial resources

On average across the EU-27, less than two in five enterprises (39%) have a **specific person or unit responsible for organising training** (Figure 4.3). There are large differences between countries. While 56% of all enterprises in the United Kingdom have such structures, only 11% of enterprises in Latvia do. Within countries, smaller enterprises are less likely to have a specific person or unit responsible for organising training, and decisions are instead made by the owner or CEO (Cardon and Valentin, 2017[2]). Across the EU-27, 32% of small, 51% of medium and 80% of large enterprises have dedicated training functions on average. Differences between sectors are limited (not displayed in graph).

Figure 4.2. Enterprises with human resources dedicated to training

Percentage of enterprises with a specific person or unit responsible for organising training by size, 2015

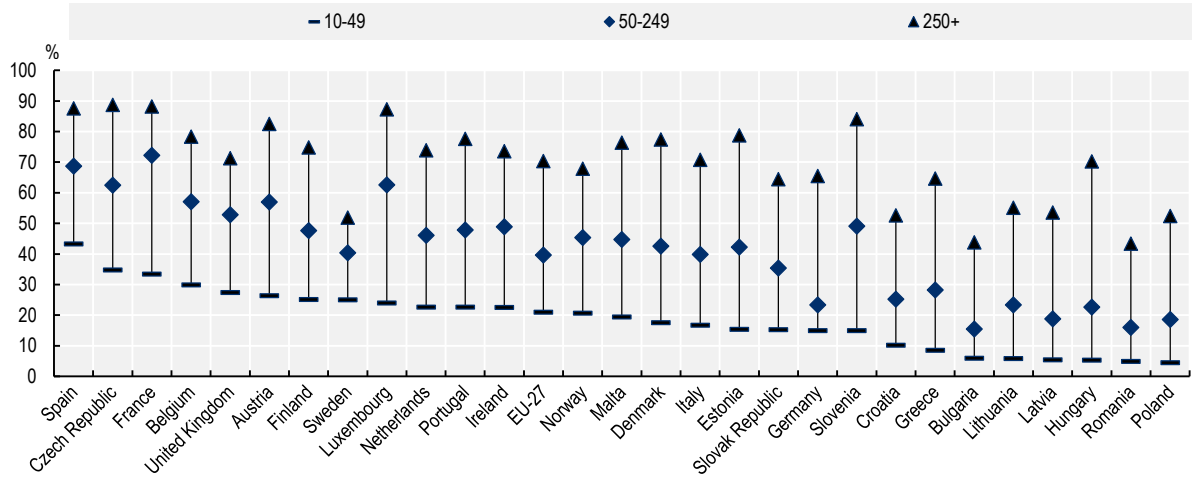


Note: Training refers to CVT and other training.
Source: Eurostat, CVTS 2015, [trng_cvt_07s].

Even where organisational structures responsible for training exist, these are not always equipped with specific **financial resources** (Figure 4.3). Only one in four enterprises across the EU-27 (24%) has a specific budget for training. Again, there is significant variation between countries and differently sized enterprises. The shares of enterprises in a country that dedicate specific human and financial resources to training are strongly correlated (r=0.72).

Figure 4.3. Enterprises with financial resources dedicated to training

Percentage of enterprises with a training budget by size, 2015



Note: Training refers to CVT and other training.
Source: Eurostat, CVTS 2015, [trng_cvt_07s].

Role and extent of employee involvement

Involving employees in decision making about training can increase their motivation to train and help firms to better identify individual and collective skill needs. This can maximise the effectiveness of training. There are two key ways in which **employees** can voice their views and participate in organisational decision-making around training (Bryson and Zimmermann, 2020[5]; Eurofound and Cedefop, 2020[3]): participation can take place directly, for example through meetings and discussions with line managers, cross-division or company-wide meetings on training matters. Participation can also take place indirectly in the form of workplace social dialogue, where employee representation structures engage in decision-making about training on behalf of employees. Such structures include works councils, trade union delegations or ad-hoc consultative committees.

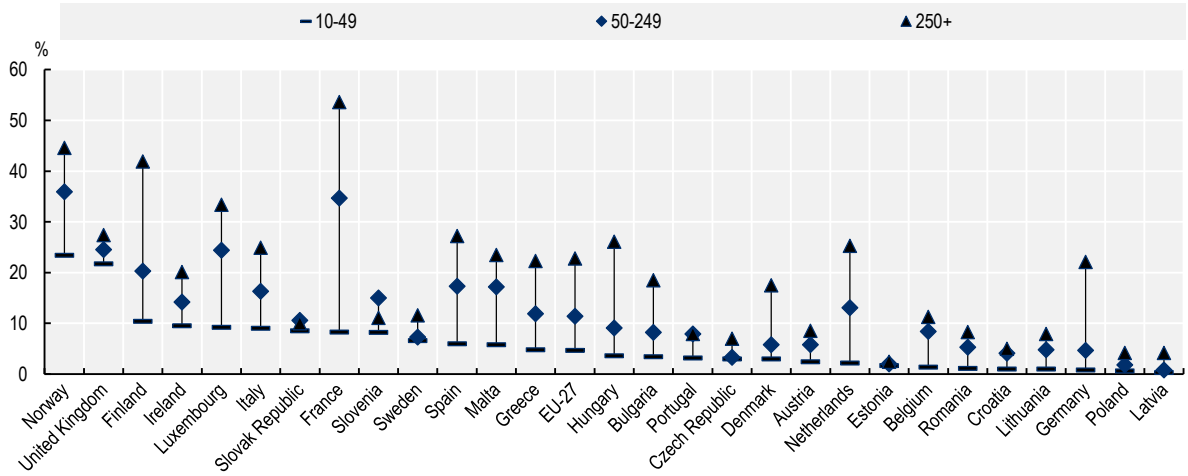
Data from the CVTS is limited to indirect involvement and shows that the involvement of **employee representatives** in training-decisions varies between countries, size of enterprises and between the specific aspects of organisational decision-making. Overall, however, the involvement of employee representatives in organisational decision-making on training is limited. On average across the EU-27, employee representatives participate in setting overall training objectives in 6% of enterprises, in defining the type of training in 5% of enterprises and in the selection of training participants in 4% of enterprises, according to CVTS data.

Considering the involvement of employee representatives in objective setting as an example, illustrates the strong variation across countries and company size classes (Figure 4.4). Involvement of employee representatives is highest in Norway and the United Kingdom by a vast margin. Latvia and Poland display the lowest share of enterprises with employee involvement. Typically, the share of enterprises involving

employee representatives in objective setting increases by company size, sometimes dramatically so. In the case of France, for example, this is due the fact that a training commission (*commission de la formation*) with the involvement of employee representatives is obligatory in enterprises with 300 employees or more.

Figure 4.4. Involvement of employee representatives in training decisions is generally low

Percentage of enterprises where staff representatives are involved in objective setting of training by size, 2015



Note: Training refers to CVT and other training.
Source: Eurostat, CVTS, 2015, [trng_cvt_09s].

New evidence on who makes training decisions

Evidence from the case studies corroborates these findings and provides some more detailed insights on who makes training decisions in enterprises. In particular, it offers new information on the relationship between the existence of HR and training managers and the generosity of training, as well as the extent of direct and indirect employee involvement in decision-making on training.

Existence, characteristics and role of human resource and training function

The vast majority of enterprises interviewed for this study have a **human resource function** (>80%), but their capacity varies by company size. In medium-sized enterprises, company owners or directors take on HR responsibilities as part of their job. As enterprises get larger, they tend to upscale their HR functions. Enterprises with more than 1 000 employees often have large HR departments, some with multiple training managers. The typical HR representative interviewed in the context of this study holds a tertiary qualification and has a positive attitude to life-long learning, generally demonstrated through his or her own participation in learning. Most **enterprises without HR function** are medium-sized. Where companies have no HR function, this is typically due to high associated costs *('cannot afford HR given the company size')*, having HR responsibilities at a corporate level or having outsourced HR functions to external providers.

Around one in four enterprises included in the case studies employ a **person with dedicated responsibilities for training** within this HR function. Where they exist, these are referred to as 'training managers', 'training specialists' or 'head of learning'. Their responsibilities typically span the complete decision-making process of training from planning, organising the implementation and evaluating the training, as exemplified by an Estonian enterprise providing knowledge-intensive services.

> *A training specialist is responsible for collecting and analysing information on the training needs of employees and for organizing trainings. The specialist reviews information from an employee survey and from individual development conversations to identify training need at individual, departmental and company level. If the training need seems to apply to a larger group, it is organised by the training specialist.*
>
> *Enterprise providing insurance broker services, Estonia*

The **role of the HR** (or the training specialist) function in organisational decision-making varies across contexts. According to evidence from the case studies, it is relatively rare that the HR function alone holds the full responsibility for training, from determining the training needs of the enterprise, over organising trainings, to sharing information about training opportunities with employees and having the final word on their participation. More often, HR is a broker and co-ordinator of various demands on the training-system made by different stakeholders in the organisation, be this management, finance, department managers and employees themselves (see also detailed description on different decision-making steps in subsequent sections).

Another level of complexity exists in enterprises or establishments that are part of a larger, often **global, group**. In these cases, not only does HR play a co-ordinating role internally, but also aligns training-decisions with HR functions at the central level. The case of a medium-sized Austrian branch of a large global computer manufacturer illustrates that the role of local HR can be much reduced in this set-up.

> *Training is not a central issue for the Austrian establishment. Training planning happens in the respective divisions at international level, which each have its own HR people and specific training strategies. These functions are based outside of Austria. The Austrian HR department focuses on salaries, agreements, labour law and recruiting and is involved when it comes to the training that applies to all employees in Austria (*e.g. *data protection, competition law, compliance).*
>
> *Medium-sized manufacturer of computers or electronic products, Austria*

Relationship between presence of training function and generosity of training

Evidence from the case studies can give an indication if the existence of an HR function and/or training manager is positively associated with the generosity of training provided. In this study, the generosity of training is defined as the coverage of the training offer – including all, the majority or the minority of employees – and the number of hours of training provided per employee and year.

When it comes to the **existence of a (general) HR function** and the generosity of training, results are mixed. While enterprises with an HR function are substantially more likely to offer training to all or most of their employees than those without (75% vs. 60%), they are actually less generous when it comes to training hours per employee and year (50% vs. 60%).

However, having a **dedicated training manager/specialist** seems to have a clear positive correlation with the generosity of training provided. Enterprises in the sample that have a dedicated training manager are substantially more likely to provide training to all or the majority of its employees than enterprises without such function (85% vs. 60%). Moreover, they are substantially more likely to provide above average or at least average number of training hours per year than enterprises without dedicated training managers/specialists (60% vs. 50%).

These relationships should not be interpreted as causal and are based on a small number of sampled enterprises (n=100). However, this finding adds to the limited empirical evidence on the subject by confirming what seems to be intuitive: enterprises that invest resources in having a dedicated training manager/specialist also invest more resources in training their employees. No clear patterns emerge on the relationship between the characteristics of the individual responsible for training in the enterprise, e.g. their gender, age, educational background or attitude towards life-long learning, and the generosity of the training offer in the enterprise.

Role of direct and indirect employee involvement in decision-making

In line with the literature, both direct and indirect employee involvement in decision-making about training can be observed in the case studies, with the role of direct involvement being relatively more common. Direct employee involvement can be formal, for example structured feedback provided in appraisal interviews, or informal, for example continuous exchange or one-to-one feedback. Indirect employee involvement is typically formal (Mowbray, Wilkinson and Tse, 2015[6]). Table 4.1 summarises the different types of involvement detected in the case studies and at what stage of organisational decision-making on training these are observed.

Table 4.1. Type of employee involvement observed in the case studies

Type of employee involvement		Examples	Stage of decision-making at which commonly observed
Direct	Formal	Appraisal interviews Progress interviews Developmental conversations Employee surveys	Assessing enterprise training needs Selecting individuals into training Evaluating the results of training
	Informal	One-to-one meetings Informal exchanges Continuous exchanges	Assessing enterprise training needs Evaluating the results of training
Indirect	Formal	Ad-hoc consultative groups Focus groups Works Councils Collective bargaining Employee working group on training Training committees Employment and training commissions	Assessing enterprise training needs Developing training plans

Note: Interviews assessed the role of individual employees and employee representatives in making different training decisions.
Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

The role of **direct employee involvement** in decision-making is most strongly observed when it comes to selecting individuals into training. In many cases employee and line managers jointly discuss individual training needs, which can then feed into the assessment of the overall training needs of the enterprise (see sub-chapter on training needs assessment). Direct employee involvement also plays a role in the evaluation of training, as verbal feedback and employee surveys are the most common way of evaluating the outcomes of training (see sub-chapter on evaluating training). Econometric analysis on ECS data shows that enterprises using high-performance work practices, enterprises in the information and communication sectors and digitalised enterprises are more likely to facilitate direct employee involvement in training (Box 4.1).

Formal structures of **indirect employee involvement** and their prevalence vary across countries. For example, only one in four enterprises in Ireland interviewed in this study had a works council, compared to all but one enterprise interviewed in France. However, even where formal structures for representation exist, they played a limited role in organisational decision-making about training. Employee representatives contribute to the assessment of the training needs of the enterprise and the development of training plans in only one in five enterprises in the sample. The role of employee representation in identifying individual training needs is mostly limited to advocacy on behalf of a limited number of individuals who are in disagreement with the enterprise on training decisions.

In only a handful of enterprises in the sample is training a subject of **negotiated agreements**. Notable exceptions exist primarily in France and Italy where employee representation seems to play a greater role in organisational decision-making on training. In France, several case studies include descriptions of the role of the Social and Economic Committee (CSE), the employee representative body, in decision-making

on training. Generally, company-training plans are discussed with the CSE and other union representatives. In some cases, the CSE has a sub-committee that deals with training decisions.

> *There are Social and Economic Committee (CSE) and union representatives within the company […] In order not to overload the CSE meetings, there is an Employment and Training Commission that reports to the CSE. […] Now, with the development of e-learning, employees' representatives are oftentimes in a negotiation process because they do not always find it relevant. They are fighting to keep some training actions in the face-to-face mode.*
>
> *Medium-sized company in high-tech manufacturing, France*

Negotiated provisions may include, for example, the minimum number of training days per employee or other commitments to training in the enterprise. A high-tech manufacturer in Italy illustrates how such agreements look like in practice:

> *[…] in May 2020 the trade unions and the enterprise signed an agreement to try to overcome the crisis that is affecting the world industrial system and in particular the tension that is characterizing the Oil and Gas markets involving all the competences within the enterprise. The agreement is based on the following key concepts: (i) enrichment of the technical / professional background of all workers by extending executive skills through an incremental acquisition of skills; the increasing internalisation of knowledge and competences against externalisation in order to provide an added value to the technical process in the enterprise.*
>
> *Medium-sized company in high-tech manufacturing, Italy*

Box 4.1. Enterprise characteristics and direct employee involvement in decision-making on training

Econometric analysis of data from the European Company Survey 2019 (see Annex B for an illustration of the results and the methodology) provides additional insights on where direct employee involvement in training is more frequently observed. It shows that:

- There is no relationship between company size and the influence of employee involvement.
- Less hierarchical companies are less likely to involve employees in decision-making. This may seem counter-intuitive, but could be because these enterprises tend to be badly managed or because they rely on a different, predominately informal, learning model that requires less formal decision-making.
- Some forms of high performance work practices, notably performance pay and worker autonomy are positively related to involving individuals in decision-making on training. This meets expectations, as employee involvement is part of the suite of HPWP.
- Notably, the adoption of technology – with the exception of robots – is related positively to employees having an influence on training decisions.

Training needs assessment and planning training

Megatrends such as technological change, globalisation, ageing societies and the transition to a low-carbon economy are rapidly changing the skills enterprises need to achieve positive business outcomes. To keep abreast with these changes, enterprises need to increasingly engage in assessing current and future human resource requirements and in developing plans to meet these (Sparkmann, 2018[7]). Training needs assessment or analysis (TNA) is a key tool for companies in this context. At the most basic level,

TNA is a gap analysis. It involves enterprises asking themselves i) what skills they need to achieve their objectives; ii) to what extent the existing workforce has these skills, and iii) if the gap between both is best addressed through training (Ferreira, Da Silva Abbad and Mourao, 2015[8]).

While the existing literature provides some theoretical insights to training needs analysis, it has only limited information on how it works in practice. Evidence from the enterprise case studies addresses this gap, by painting a comprehensive picture of how TNA takes place in enterprises and highlighting where enterprises may need support to prepare for current and future skill challenges.

Existing evidence on training needs assessment

The **theoretical literature on TNA** concerns itself with two issues. Firstly, it defines what is meant by training needs and, secondly, it develops different models that can be used to analyse these needs. Some academics criticise that models of TNA have become so ubiquitous that the term can now mean almost anything (Leigh et al., 2000[9]). Others criticise that one-size-fits-all models for TNA may not be appropriate for individual companies (Cotes and Ugarte, 2021[10]). A systematic literature review by Salas et al. (2012[1]) suggests that, practically, TNA can be broken-down into three components (see also McGhee and Thayer (1961[11])):

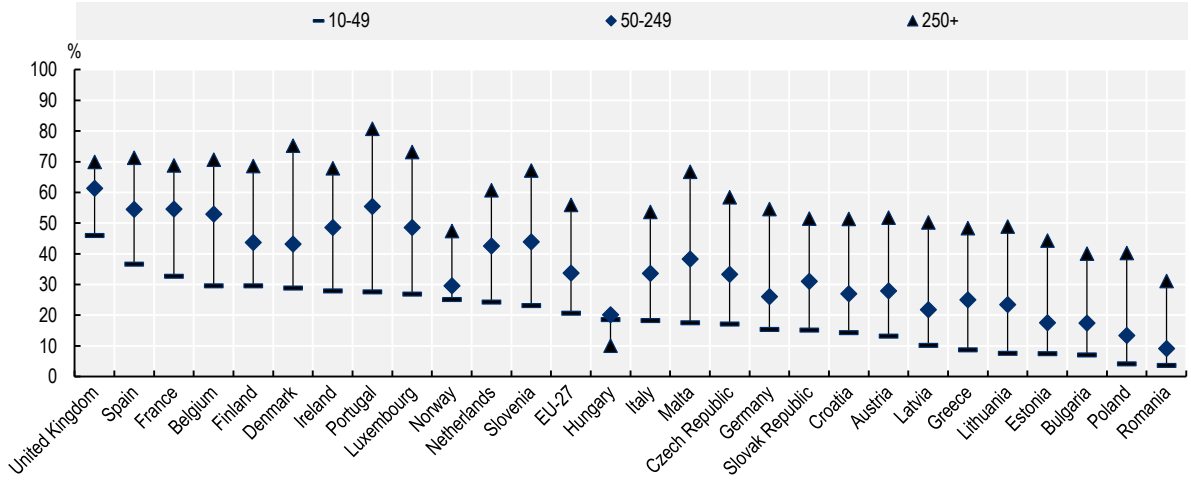
- Job-task analysis: an analysis of job functions, task requirements and associated competences;
- Organisational analysis: the analysis of strategic priorities of the organisation and its environment;
- Person analysis: the assessment of individual skills and the type of training individuals needs.

There is only limited research on the **application of TNA in practice**. The bulk of empirical research on TNA has taken place in the health sector, followed by business administration (Ferreira, Da Silva Abbad and Mourao, 2015[8]). Overall, the evidence suggests that enterprises rarely take a systematic approach to establishing their training needs (Cotes and Ugarte, 2021[10]; Arthur et al., 2003[12]). Small and medium enterprises in particular seldom carry out TNA (Cardon and Valentin, 2017[2]; Macmahon and Murphy, 1999[13]). Despite the positive effects ascribed to TNA by the literature, empirical research on the effects of conducting TNA on training effectiveness and organisational performance is scant. A meta-analysis of the training and development literature from 1960 to 2000 failed to identify a positive association between needs assessment and training effectiveness, but was based on a small number of studies (Arthur et al., 2003[12]).

Firm-level survey data paint a slightly more optimistic picture, at least of the extent to which enterprises assess their future skill and competence needs (Figure 4.5).[1] On average across the EU-27, 24% of enterprises regularly assess their skill and competence needs as part of the overall planning process in the enterprise. Consistent with the pattern, larger enterprises with more than 250 employees do so more frequently (56%) than smaller enterprises with 10-49 employees (21%). Among the countries for which data is available, enterprises in the United Kingdom most frequently assess their skill needs (49%), followed by Spain (40%) and France (37%). At the other end of the spectrum, less than 10% of enterprises regularly assess their skill needs in Bulgaria, Poland and Romania. In addition to the regular assessment of skills needs, 29% of enterprises conduct irregular assessments of future skill and competence needs on average across the EU-27 (not displayed in graph).

Figure 4.5. Enterprises assessing skill needs

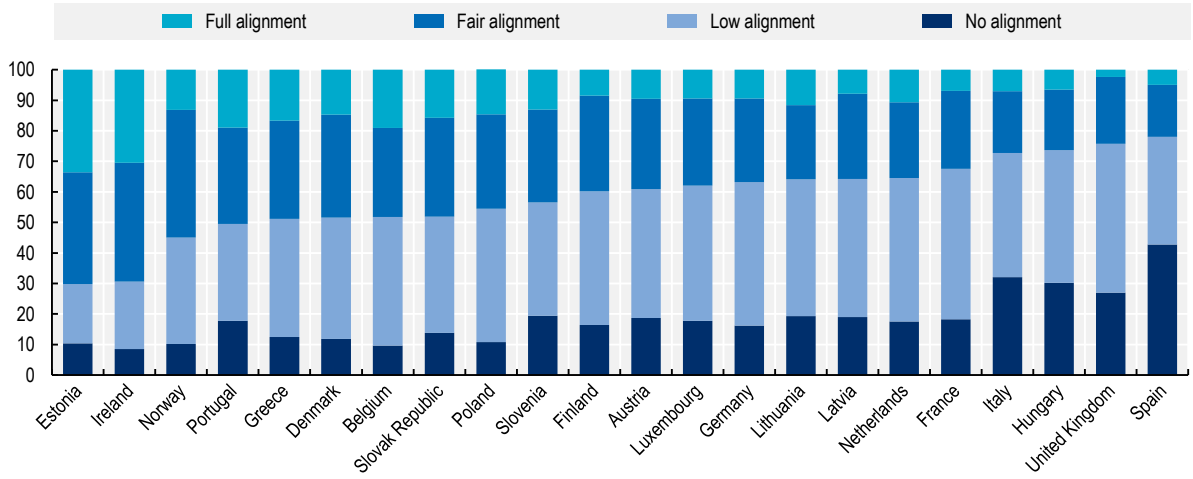
Percentage of enterprises that regularly assess future skill needs by size, 2015



Note: Training refers to CVT and other training; enterprises for which an assessment of skills and competence need is part of the overall planning process in the enterprise.
Source: Eurostat, CVTS, 2015, [trng_cvt_33s].

Figure 4.6. Alignment between identified skill needs and the training provided

Percentage of enterprises with different degrees of alignment between skill needs identified and training provided



Note: Excluding firms with less than ten employees; countries are ranked by their average degree of alignment; the degree of alignment is calculated as the overlap between the top three development priorities of firms and the top three training priorities (in terms of training hours). Each firm can score either zero (i.e. no overlap), low (i.e. one development priority is also a training priority), fair (i.e. two development priorities are also training priorities) or full alignment (i.e. complete overlap between development and training priorities).
Source: CVTS 2015, from OECD (2019[14]), *Getting Skills Right: Future-ready adult learning systems*, https://doi.org/10.1787/9789264311756-en.

Assessing future skill needs does not automatically imply training employees in line with these needs, as skill needs may be satisfied through recruiting new staff, for example. In fact, there seems to be limited overlap between the identified skill needs of enterprises and the training actually offered (OECD, 2019[15]).

Only in 13% of enterprises in European OECD countries is there a complete overlap between the specific future skill needs identified and the focus of the training offered; an additional 30% of enterprises display a fair amount of overlap. Training for the future skill needs identified seems to be most common in Estonia, Ireland and Norway and least common in Spain and the United Kingdom (Figure 4.6).

New evidence on training needs assessment

The qualitative case studies provide richer information on the extent to which enterprises engage in strategic workforce planning more generally, which actors are involved and how training needs assessments are conducted in practice.

Extent of strategic workforce planning

About half of all enterprises included in the sample have a **workforce strategy**, which sets out how the organisation plans to prepare its workforce to deliver its business strategy. Such strategies include strategic considerations on the recruitment process, induction of new employees and training provision. In line with expectations and the existing evidence, larger enterprises in the sample are much more likely to engage in workforce planning. Close to all enterprises in the sample with more than 1000 employees have a workforce strategy, while the same is only true for 60% of enterprises with 250-499 employees and 20% of enterprises with 50-99 employees.

Workforce strategies are most common in high-tech manufacturing companies and least common in low-tech manufacturing. There is limited cross-country variation, with only Austrian enterprises in the sample being somewhat more likely to have a workforce strategy. Notably, all French companies with 300 or more employees have a workforce strategy, due to a legal requirement to engage in strategic workforce planning (*la gestion prévisionnelle de l'emploi et des compétences, GPEC*) every three years. The aim of the regulation is to avoid unforeseen skill needs and subsequent restructuring.

Where they exist, the planning horizon of the workforce strategies varies widely between one and ten years, with most enterprises having either annual or 5-year workforce strategies. Enterprises that are part of an international group may follow a workforce strategy that is set at the international level and adapt it to the local context.

Going beyond a workforce strategy, approximately 50% of enterprises in the sample have a **training plan or training catalogue** that outlines and lists available training opportunities. Not all enterprises that have a workforce strategy also have a training plan and vice versa. Training plans are typically updated on a yearly basis, or even more frequently if needed. One large Italian publishing company highlighted that the training plan for IT staff was updated more often that the plan for regular employees.

> *The training plan usually has a duration of one year. Only the plan for the IT division is shorter […] six months […]. Because of the pandemic, the IT department is practically indispensable, consequently having a continuous update of skills is very important.*
>
> *Large publishing company, Italy*

Some enterprises, in particular in France, define **training pathways** for specific trades. These are long-term plans of continuing professional development, which have a modular structure. They can lead to a higher professional qualifications and salary increases.

Approaches used in training needs assessment

The case studies provide a number of new insights on how enterprises approach training needs assessment. There is no evidence that companies follow the three components of training needs assessment outlined in the literature, i.e. job-task, organisational and person analysis. Job-task analysis

in particular is not commonly described by the enterprises interviewed, while aspects of organisational and personal analysis can be identified in the case studies. At least one in ten enterprises included in this study do not conduct any analysis of their training needs.

Table 4.2. Approaches to training needs analysis taken by enterprises in the sample

Approach	General approach	Tools
Top-down	Market research	No specific tools mentioned
	Compliance with regulatory requirements	Review of certifications needed Compliance with mandatory training
	Business and operational needs	Review of new client needs Review of needs induced by new technology Review of needs induced by new products
Bottom-up	Employee feedback	Appraisal interviews Employee survey Informal feedback
	Assessment of competences and/ or skills of existing workforce	Competence database Competence mapping Competence framework Competence/skill/qualification matrix Occupational profiles
	Review of turnover	Assessment of people leaving Number of new hires

Note: Interviewees were asked to describe how the enterprises assesses existing skills of the workforce and skills needed in the future.
Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

Enterprises use a variety of methods and approaches to assess their training needs, which fall in two categories: **Top-down approaches** – based on an assessment of business, client or regulatory needs – or **bottom-up approaches** – based on employee feedback or existing skills of the workforce. Table 4.2 provides an overview of the approaches to training needs analysis observed in the sample.

The use of bottom-up approaches is somewhat more common. A heavy reliance on employee requests can mean that training planning is more reactive than strategic. The HR manager of an Estonian manufacturer of electrical equipment, for example, draws information from the appraisal review process to assess individual training need.

> *The HR manager receives input from a software programme, which includes training requests from developmental conversations. If a number of people request a similar training (*e.g. *developing computer skills, training to communicate with problematic colleagues) and it is considered a valid request, the HR department starts planning the training.*
>
> *Manufacturer of electrical equipment, Estonia*

Market analysis, foresight or other future-oriented strategic considerations are only mentioned as tools for TNA by a small number of enterprises interviewed. There are some notable exceptions of more innovative ways to assess training needs, such as foresight exercises or focus groups, as exemplified by an Italian service provider:

> *The new workforce strategy is in preparation. It aims to identify the unique selling point of each sector of activity. This means identifying which are the distinctive elements that each sector of activity would like to work towards in the long term. To this aim, the enterprise started to organise internal foresight workshops involving both the HR department and line managers.*
>
> *Large care provider, Italy*

However, much of how training needs are determined in enterprises remains a black box. For example, one in four enterprises state that they use a competence assessment, database, framework, matrix or mapping to determine training needs. Enterprises using these tools are primarily active in knowledge-intensive services or high-tech manufacturing. It is however unclear what lies behind these concepts and how this assessment of employee competences takes place in practice, given the notorious challenges competence assessment poses for enterprises. Frequently, enterprises simply state that an assessment of competences is carried out by teams and managers, without providing further details of how this takes places. The example of one rural manufacturer of chemical products in Italy illustrates this point:

> *The "Employee License" is an instrument to map and internally "certify" the competences and skills of a specific individual, to increase the visibility of skills and to keep track of training and courses that the individual has attended. The License is not a job profile (normative), but more of a descriptive tool. The Employee License was introduced in the past 1-2 years and is a tool to collect and make explicit the different competences, experiences and strengths that each worker has developed and achieved. It is also linked to the frequent delivery of tests and assessments related to different abilities and contents. The enterprise hopes that this tool will become an important tool in the assessment and sharing of competences and abilities, to further support personal and professional growth.*
>
> *Rural chemical manufacturer, Italy*

Actors involved in assessing enterprise training needs

In the enterprises included in the case studies, decisions on training needs are primarily made by HR and management functions (Table 4.3). Key players in the decision-making process are human resources – involved in three out of four enterprises – and top management, be this CEOs, managing directors or management boards – involved in two out of three enterprises. Some enterprises involve lower levels of management, such as division or department managers, when defining companies training needs. This is somewhat more common in large firms, where top-management may be further removed from training needs on the ground. In rare cases, finance departments are involved in decision-making, notably in the manufacturing sector. Where specific training functions exist in enterprises, they are involved in TNA, but such functions are rare as described above.

Table 4.3. Corporate actors involved training needs assessment

Type of actor	Incidence of involvement	Where is their involvement more common?
Human resources	Very common	No clear patterns emerge
Top management e.g. CEO, director, directors, management, managing directors, management board	Very common	No clear patterns emerge
Middle management e.g. division managers, department managers, business unit managers	Common	Large enterprises
Line management	Rare	No clear patterns emerge
Finance function	Rare	Manufacturing sector Medium-sized enterprises
Training function e.g. Head of Training, training lead, training specialist, talent leader	Rare	Services sector Large enterprises

Note: Interviewees were asked to describe how the enterprises assesses existing skills of the workforce and skills needed in the future.
Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

In practice, none of the actors outlined above assesses the training needs of the enterprise alone. The HR function typically co-ordinates training needs assessment, which involves multiple employees in management positions. This can be illustrated using the example of an Estonian manufacturer of electrical equipment included in the sample. In this Estonian firm, the HR manager compiles an initial training plan based on information from individual developmental conversations, i.e. the appraisal process. This draft training plan is then shared and discussed with line-managers, who identify gaps, assess at what level training should take place and decide if all training is strictly necessary. Following these exchanges, a revised plan is discussed with heads of departments, who will take a longer-term perspective and define when the trainings will be most relevant in the coming 1-2 years. Finally, a corporate steering group approves the training plan and then communicates it to employees.

In around half of the enterprises included in the sample, **employees** have a voice in assessing the training needs of the enterprise. In most cases, this input is made directly, i.e. by individuals themselves rather than employee representative bodies. It typically takes the form of discussions in the context of appraisal interviews, employee surveys and informal conversations. The example of a large Irish restaurant business illustrates why this direct input of employees is valued by enterprises.

> *Management believes that employees should have active roles in the business, as they are in contact with customers, clients, providers and competitors. As such, they are seeing trends and preferences that bring ideas to the business. Management welcomes their input and encourages all staff to come forward informally but also through formal avenues and meetings to contribute to the strategic direction and operational aspects of the division.*
>
> *Large rural restaurant business, Ireland*

In the sample, a small number of enterprises had **ad-hoc working groups** on training, which provide an alternative channel for direct employee involvement. Their role is typically advisory. An example of such an approach is illustrated by a rural food manufacturer in Italy, who implements a consultation model called 'philosophical practices'.

> *The workforce strategy has been based on the organisation of group-based training sessions called "philosophical practices" – focus groups – during which workers are asked to reflect on their training needs and identify methods to tackle these needs.*
>
> *Rural food manufacturer, Italy*

Elected employee representatives play a more limited role in assessing and defining enterprise training needs. They provide input to the definition of company training needs only in around one in five enterprises interviewed in this study. There is some cross-country variation and enterprises in France stand out in having strong involvement in the process. The strategic workforce planning for companies with more than 300 employees (GPEC) involves the social partners typically via the Social and Economic Committee (CSE). Employee representatives discuss the proposals for the competence and training needs assessment made by the management of enterprises. Some employee representatives interviewed suggested that these plans are often a formality and lack true strategic vision and are not accompanied by appropriate actions.

Reasons for not engaging in strategic workforce planning

One in three enterprises in the sample do not engage in workforce planning in a structured way, having neither a workforce strategy nor a training plan. The case studies provide some limited evidence of why this is the case. Reasons cited by enterprises include a lack of capacity, for example due to the **lack of formal HR function**; strategic planning not being part of the **culture of the enterprise**, due to it being a family business; and **transitioning** from being a small into a larger business. An interviewee from a

medium-sized Italian wholesale company summarises how strategic planning may lag behind the reality of expanding a business.

> *The company has enjoyed rapid growth in the past years, doubling the number of employees in about five years. This growth has not been supported by specific strategies, tools or structures and looking forward – as the company continues to grow – interviewees do not report specific strategies to manage the workforce.*
>
> *Medium-size wholesale retailer, Italy*

Several enterprises in the sample take a very conscious decision not to engage in workforce planning to **maintain flexibility**. These are often enterprises whose business models are based on quickly adapting to client-demand. New contracts may require staff to learn new skills on an ad-hoc basis. An interviewee from an industrial laundry service company in Austria illustrates this challenge.

> *There is no written human resources strategy, no plan. Rather, the human resources strategy results from the client structure: if the client structure changes, it is often necessary to intervene in staff development.*
>
> *Industrial laundry company, Austria*

Deciding on who delivers training

Enterprises are faced with *make or buy* decisions when delivering training. This means that they must make a decision on delivering training in-house or outsource it to external providers. Existing research has paid limited attention on how companies arrive at this decision. Information from the case studies provides new evidence on what factors drive the choice of outsourcing training, which type of training are most likely to be outsourced and how enterprises select external training providers.

Existing evidence on training outsourcing

The existing research has analysed **the problem of training outsourcing** at a theoretical level as a typical *make or buy* decisions that enterprises need to take. Table 4.4 summarises the reasons for insourcing and outsourcing training discussed in the literature.

Table 4.4. Reasons for outsourcing and insourcing training

Reasons for outsourcing training	Reasons for insourcing training
Availability of providers in the external market	Availability of internal expertise
Lack of internal expertise	Cost reduction (for larger firms)
Cost reduction (for smaller firms)	Lower transaction costs (especially for smaller firms)
Timeliness	Greater customisation
Access to best practices and talent	Greater employee engagement
	Support of internal bonds and communication

Source: Galanaki, Bourantas and Papalexandris (2008[15]), A decision model for outsourcing training functions: distinguishing between generic and firm-job-specific training content, The International Journal of Human Resource Management, 19:12, 2332-2351, https://doi.org/10.1080/09585190802479579.

In theory, **enterprises insource training** when they have sufficient expertise in house or when training is important to sustain their competitive advantage, whereas they outsource when expertise is lacking and there are training providers available on the market. This is line with the resource-base-view of the firm, which has gained traction in the management literature over the past two decades. Consistent with transaction cost economics, enterprises should also insource training whenever the transaction costs of managing the relationship with external providers increase. This might happen because training is provided

frequently or because the requirements of training programmes are difficult to specify, making it more challenging to secure effective co-operation.

Firm size ought to play a crucial role in the outsourcing decision. Smaller firms might face higher transaction costs in dealing with external providers, because they typically have less negotiation power. More importantly, firm size should determine whether outsourcing reduces delivery costs. Outsourcing can lead to lower costs of provision for smaller firms, which may benefit from economies-of-scale effects achieved by their providers. As firms increase in size, they will tend to insource training, as they can fully realise such economies-of-scale effects in-house.

Lastly, both outsourcing and insourcing may contribute to increasing the quality of training. On the one hand, delivering training externally can lead to a professionalisation of the training function, increasing access to best practices and timeliness. On the other hand, delivering training internally can result in programmes that are more tailored to the needs to the enterprise and generate a higher level of employee engagement, as well as supporting internal bonds and communication.

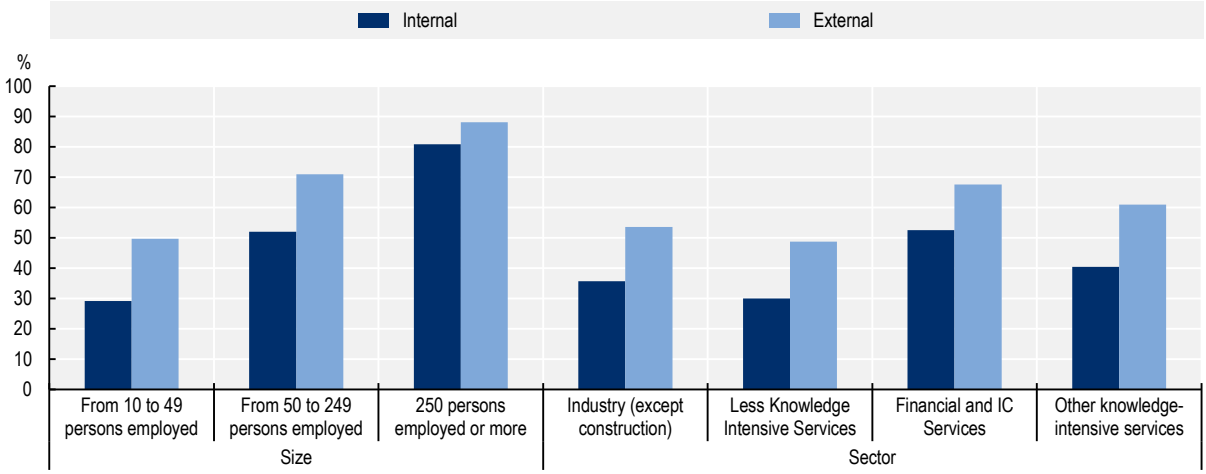
Research has so far failed to gather extensive empirical evidence on these theoretical predictions (Chaudhuria and Bartlett, 2014[16]). Using a sample of 100 Greek enterprises, the work by Galanaki, Bourantas and Papalexandris (2008[15]) is an exception. They reach three key conclusions: First, the outsourcing decision seems to be driven by the absence or availability of expertise rather than by cost considerations. Second, large companies are less inclined to rely on external providers, in line with the theoretical predictions on the economies-of-scale effects. Third, enterprises that provide training frequently or that have very specific training needs are more reluctant to engage with external providers, consistent with the theoretical predictions from transaction costs economics.

Firm-level surveys provide some evidence to corroborate and complement the theoretical predictions and findings from the HR research. According to CVTS data, enterprises in Europe are more likely to offer external rather than internal CVT courses, across all size classes and sectors (Figure 4.7). However, consistent with the literature, as enterprises grow in size, they tend to develop some internal training provision. Large enterprises are almost equally likely to offer internal (81%) and external (88%) training, whereas small enterprises rely mainly on external (50%) rather than internal (29%) courses. When looking at different industries, enterprises in financial, and information and communication (IC) services seem to be more inclined to deliver at least some training internally, relative to enterprises in other sectors.

Most enterprises, across all size classes and sectors, rely on **private sector delivery**, via training providers or other private companies, such as suppliers, customers or partner companies for external training provision. Publicly funded training providers do not seem to be a common choice. Their importance is similar across sectors, ranging from 10% in financial and IC services to 14% in industry, but is higher among large (21%) than medium (16%) and small (12%) enterprises. The relevance of employers' associations varies across both sectors and size classes. They play a more important role among large (36%) and medium (32%) than small (24%) enterprises, and they seem to be more common in industry (29%) than financial and IC services (23%) or LKIS (24%) (not displayed in graph).

Figure 4.7. Provision of internal and external training

Percentage of enterprises offering internal or external CVT courses, EU-27, 2015



Note: Internal CVT courses are designed and managed by the enterprise itself, whereas external CVT courses are designed by external providers, such as education institutions, private training companies or chambers of commerce.
Source: Eurostat, CVTS 2015, [trng_cvt_01s , trng_cvt_01n2].

New evidence on training outsourcing

The HR literature provides some theoretical considerations of the drivers of outsourcing decisions, but there is a lack of robust empirical evidence applicable to most countries and sectors. The CVTS makes it possible to build a good understanding of how the reliance and the type of training providers varies across sector, size classes and countries. However, it is not well suited to provide information on what types of training are more likely to be outsourced and how enterprises select training providers. Insights from the qualitative case studies can shed light on the questions i) what factors drive the choice of outsourcing training for enterprises; ii) what types of training are more likely to be outsourced; and iii) how do enterprises select external training providers.

Factors driving the outsourcing decision

Almost all enterprises in the sample claimed that they rely on a mix of internal and external delivery, but large enterprises reported outsourcing training less frequently, in line with the existing evidence from both the CVTS and HR research. Other enterprise characteristics, such as sector or product market strategy, do not seem to play an important role in driving the outsourcing decision.

Three factors seem to explain these patterns: the availability of expertise, the reduction of costs and the customisation of training opportunities. As suggested in the literature, the availability or absence of expertise is a crucial driver of the decision to outsource training. Enterprises generally deliver training internally if they have knowledge on the subject, whereas they outsource it if they do not. This attitude was succinctly summarised by an interviewee in a large Italian low-tech manufacturing enterprise.

> *Training is partly delivered through internal trainers, and partly through external providers. Whenever specific knowledge of the internal processes and operations is needed, internal trainers are used. On other specific subjects, external trainers are selected.*
>
> *Large low-tech manufacturing enterprise, Italy*

Large enterprises tend to rely less frequently on outsourcing, because they have a larger knowledge pool they can draw upon, when organising training activities. For example, in a large multinational enterprise in Austria most courses are organised in-house and delivered by employees of the global group, because they have knowledge across many specific areas.

Reducing costs by exploiting economies of scale also plays an important role in the outsourcing decision. In line with the theoretical predictions from the research, large enterprises often deliver training internally, because it is less expensive than relying on external providers. For instance, a large KIS enterprise in France reports delivering most training internally because it is more cost-effective. Conversely, medium-sized enterprises are more likely to rely on external providers to benefit from economies-of-scale effects, as suggested the HR representative of a medium Estonian enterprise below.

> *Open courses by external providers are preferred because the training groups are not large and so it is more efficient to use open courses available for anyone rather than buy a custom-made course into the company.*
>
> *Medium-sized enterprise, Estonia*

Yet, even medium enterprises can insource some training to reduce costs, if it is delivered frequently. For example, a medium-sized enterprise providing industrial laundry services in Austria has a dedicated employee for hygiene training, because it needs to be delivered multiple times during the year.

Large enterprises go as far as setting up their own in-house training centres or separate training subsidiaries. This is driven by both costs and quality considerations. Establishing training centres can contribute to develop training programmes that are more specific or customised, as pointed out, for example, by the HR director of a large high-tech manufacturing French enterprise.

> *The Group has its own corporate training centre and a clear preference for their own trainers. The enterprise operates in a top-level field and few trainers could teach these matters.*
>
> *Large high-tech manufacturing enterprise, France*

Similarly, a large Italian KIS enterprise owns a training centre, chaired by the HR director, to deliver tailored programmes for different job profiles and to better anticipate skills needs according to the enterprise's strategic orientations.

Patterns in outsourcing for different types of training

Overall, there is substantial variation in outsourcing patterns across types of training identified in Chapter 2 (Table 4.5). External providers generally deliver programmes targeting soft skills and foreign languages, whereas the induction of new employees is always delivered in-house. Other types of training are delivered either in-house or externally.

Table 4.5. Types of training and outsourcing

Skills type	How common is outsourcing for this type of training?	Most common mode of delivery
Technical, practical or job-specific skills	Common	Course or on-the-job training
Health and security in the workplace	Common	Course
Soft skills	Very common	Course
IT skills	Common	Course
Induction of new employees	Rare	Course or on-the-job training
Foreign language skills	Very common	Course

Note: Interviewees were asked to describe in detail the two most frequently offered training opportunities and how these are being delivered.
Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

These patterns can be explained by the same two factors that were found to drive the choice of the mode of delivery in Chapter 2: fostering the transfer of training and respecting regulatory requirements. This is intuitive, as outsourced training is typically classroom based, while on-the-job training is typically internal. Enterprises rely on external providers for more transversal skills and knowledge areas, such as conflict management or foreign languages, which might be best delivered by external subject experts. For instance, a large Estonian low-tech manufacturing enterprise uses external training providers to train for soft skills, because it believes that there is no sufficient capability in-house. Conversely, they deliver training internally when it involves job- or firm-specific skills and knowledge, such as those covered in the induction of new employees.

However, in the case of technical skills or health and safety in the workplace, enterprises sometimes need to rely on external providers, because the workers need to obtain a certification to be able to complete tasks or processes. For example, a manufacturing enterprise in Ireland reports having to offer a one-day training whenever new equipment is installed to comply with health and safety regulations. The importance of these two factors was best summarised by interviewees in a French high-tech manufacturing enterprise.

> *The enterprise does not have the in-house competences to train for transversal or soft competences, the safety and security training – which leads to a licence to practice (*e.g. *electricity, fire-fighting). The training actions that are delivered in-house are developed by experts and HR. They are about enterprise-specific security issues.*
>
> *Medium high-tech manufacturing enterprise, France*

Process for selecting training providers

Evidence from the case studies suggest that most enterprises do not have a formalised process for selecting providers. In the majority of cases, the process involves collecting several quotes (typically three or four) from external providers, before making a final decision. Only a handful of very large companies publish public calls for tender or run structured procurement processes, such as is the case in a large financial services multinational in Ireland. An interviewee in a high-tech manufacturing enterprise in Estonia provides insight into a typical selection process.

> *The principle is to consider 2–3 providers and to rely on the content of the training programme as well as the price of the training when making the decision.*
>
> *Large high-tech manufacturing enterprise, Estonia*

The criteria for the selection of training providers generally include previous experience, the content of training, cost and the value for money. Some enterprises also take into consideration the physical proximity of the training provider in order to minimise the journey time for employees. For instance, an urban KIS enterprise in Austria tends to choose providers that are not too far away, so that the employees do not have to travel far, especially if they need to rely on public transport.

Some enterprises establish long-term partnerships with one or few training providers to minimise transaction and search costs. For example, a medium Estonian LKIS enterprise has a long-term relationship with one external provider, which also offers new suggestions for different training programmes. In some instances, the training is offered directly by the providers of software or machinery, in line with the findings from the CVTS. For example, in a large high-tech manufacturing Austrian enterprise, external training primarily takes place at machine producers to train staff for using new machines purchased.

Size seems to be an important driver of the level to which procurement processes are formalised. Although medium-sized enterprises are more likely to outsource training, they are less likely to have a formalised process to select training providers. This represents an area where public support or support from social partners can be beneficial. For instance, some French medium enterprises in the sample rely on the

Competence Operators (*Opérateurs de compétences*) to identify competent training providers (see Chapter 5). As pointed out by an Italian enterprise offering wholesale services, social partners may be in a good position to help firms identify training providers covering different opportunities and offering good value for money.

> *Most providers are local and are often linked to local employers' organisations or associations. This link with umbrella organisations and their service branches (specialised for instance in training) allows a good coverage of different areas and a good price-quality relationship.*
>
> *Enterprise offering wholesale services, Italy*

Alternatively, as suggested by the CVTS, social partners or publicly funded agencies might develop their own provision directly. Some medium enterprises in the sample rely heavily on training programmes organised by social partners or their training institutes, such as the WIFI in Austria and sectoral associations in Italy and Estonia, or publicl -funded agencies, e.g. *Skillsnet* in Ireland (see Chapter 5). These enterprises believe that the offering is tailored to their needs, in terms of content and accessibility, as showcased by a medium LKIS enterprise in Austria.

> *Often, WIFI is chosen as training provider. This is because of two reasons: first, because of the flexibility in their cancellation policy; second WIFI has a huge pool of trainers, so that for every topic a suitable trainer can be selected.*
>
> *Medium LKIS enterprise, Austria*

Selecting individuals into training

Given the large inequalities in accessing training between different types of employees, the issue of how access to training is given to different individuals warrants specific attention. Chapter 3 has already outlined which groups participate less frequently in training than others. It has also highlighted that individuals for whom benefits of training are higher and costs of training are lower have more access to training than others. Data from the case studies can further enhance the understanding of i) how decisions about selecting individuals into training are made in practice and ii) what influence this has on who gets access to training.

Existing evidence on selecting individuals

Once enterprises have assessed training needs and made a decision on who will deliver the training, they need to select which individuals should attend which training. The psychology literature has analysed this issues through the lens of person analysis (Tannenbaum and Yukl, 1992[17]; Salas et al., 2012[1]). Person analysis is used to identify who does and does not have the required competences for the job, as well as for whom training may be most effective due to individual characteristics, such as motivation or personality (Salas et al., 2012[1]). It can also help companies understanding of how training should be adapted to suit the needs of individual learners. However, research evidence on how enterprises conduct this analysis and the effect that this analysis has on individual and business outcomes is currently lacking.

New evidence on selecting individuals

This sub-chapter presents new evidence on the approaches enterprises take to select individuals for training, the particular role of line-managers as gatekeepers to training participation and nascent evidence on individual learning budgets in enterprises to empower employees.

Top-down, bottom-up and balanced approaches to giving individuals access to training

Evidence for the case study suggests that enterprises follow one of three approaches when giving individuals access to training. They either i) impose training participation top-down, ii) take a balanced approach incorporating the views of both managers and employees, or iii) take a bottom-up approach, allowing employees to access training on their own accord.

More than one in three enterprises in the sample take a **top-down approach** to training access. This approach is more frequently applied in low-tech manufacturing and low-knowledge intensive services, but not exclusively so. When taking a top-down approach, workers in (line) management positions identify the training needs of individuals, for example by monitoring them at work to assess if their skills meet the requirements of the job. They then approach them about taking part in training. In enterprises with a top-down approach to training, much of the training offer is obligatory, for example, when it comes to the renewal of health and safety certifications. In this context, the role of (line) management is to remind employees that they are due training to renew any certifications they hold. The example of an Austrian manufacturer of rubber and plastic products illustrates how management assess individual training needs without direct involvement of employees.

> *The need for training is determined by the team leader. Team leaders are responsible for their teams and know the existing and required skills of individuals. When they get the impression that an employee has to be educated in a certain field, they approach the managing director. The managing director approves the suggestion and both look together with the payroll accountant, where relevant courses are offered. Sometimes the team leader identifies a course themselves.*
>
> *Manufacturer of rubber and plastic products, Austria*

A **balanced approach** taking into account management and individual views is taken slightly less frequently, that is in approximately one in four enterprises in the sample. Negotiations between both actors most often takes place in the context of progress interviews, developmental conversations or appraisal interviews between line managers and individuals. In around one in two enterprises included in the sample, these formats are the key method used to identify individual training needs. There is little information about how the assessment of individual training needs is made in the context of these conversations, e.g. if line managers use any specific tools or approaches to assess individual skills needs. The example of an Estonian enterprise offering water transport services highlights how such conversations take place. It also shows that in many enterprises some training can be accessed freely, while access to external training in particular needs to be negotiated.

> *Several training courses are open to all employees – participation in these programmes does not require the approval from the immediate manager or the training department. Hence, it is important how the information on training reaches employees and how motivated employees are to taking up such training opportunities. In case a training is provided by an external provider and is not organised in-house, the decision on training is done in co-operation between the employee (interest in learning), the manager (the need for training) and the training department (the budgetary opportunities for training).*
>
> *Large enterprise offering transport services, Estonia*

In some enterprises, the results of negotiations between individuals and (line) management are formalised in **individual training plans**. These plans set out the identified training needs of an individual, as well as the steps that will be taken to satisfy this training need. The example of a large Austrian retailer illustrates how these plans are used in practice.

> *Every employee has a training plan, which must be checked once a year. It is a training matrix, which consists of certain training that every employee is obliged to attend. New employees, for example, have to take one or two weeks of online training. This is monitored annually. If an employee changed job for example, they may need a different training and an updated plan. Another reason for updating the training plan may be a bad performance evaluation. A new training plan aims to ensure that the performance in the following year will be*

> *better. Employees must sign the development plan, which means that there is a feedback discussion between employee and manager in advance, where the employee has the opportunity to express his or her wishes.*
>
> *Large retailer, Austria*

In the sample, an equally large sample relies on **bottom-up approaches** to accessing training. In approximately one in five of the enterprises interviewed, individuals are expected to identify their training needs largely independently. They may select appropriate training from an existing training catalogue or may even be required to approach management with specific suggestions for what training they want to attend. Online training has facilitated a larger reliance on bottom-up approaches to training. In many companies, online learning opportunities are freely available to employees and can be accessed without consent of their (line) mangers. The bottom-up approach is illustrated by an interviewee in a medium-size manufacturer of vehicles in Austria.

> *Ideally, the employee searches for a suitable course himself, goes to his senior management leader to present his findings and explains, which course he wants to attend and why.*
>
> *Manufacturer of vehicles, Austria*

Key role of line managers in moderating training access

Line managers frequently act as gatekeepers to training in both the top-down and balanced models described above. In one out of two enterprises for which data is available, they take the decision if an individual takes part in training. This is in particular the case in large enterprises with four or more levels of hierarchy, i.e. where HR and management departments may be far removed from the training needs on the ground.

When taking training decisions, line managers inform other actors, such as HR, department managers or overall management of the training need of individuals and get formal sign-off for their participation. This strong role of line managers can be problematic where there are communication issues between line managers and HR, e.g. where line managers are not up-to-date with the latest training offer, as highlighted by an interviewee in one French manufacturer of transportation equipment.

In companies where line managers do not take the final decision on training participation, this decision is made by department, division of unit managers (15% of enterprises in the sample), the human resource function (10%) or even senior management (10%). In a small number of enterprises interviewed (<5%), individuals have the final say on their training decisions.

Evidence on empowering employees through individual training budgets

The case studies produce some nascent evidence on how some enterprises try to empower employees through **individual training budgets**. Both tools remove the role of the line manager as gatekeepers for accessing training.

A small number of enterprises in the sample give individuals an individual training budget, which they have the liberty to spend either on their own accord or in discussion with their line manager. Budgets are explicit tools to encourage employees to take responsibility for their own learning. Enterprises that make use of this approach are exclusively providing knowledge-intensive services or involved in high-tech manufacturing. In one case – a large Estonian manufacturer of machinery – individual training budgets are only available for employees in office jobs.

Individual learning budgets generally range between EUR 1 000 and 2 500 per employee and year. In some cases, different budget envelops exist for different roles. One Irish insurance company, for example, gives regular employees a training budget of EUR 1 200 per year and managers a training budget of EUR 2 400 per year. One enterprise in the sample, an Austrian enterprise offering computer-programming

services, gives its employees training credits instead of training budget. Each full-time employee has access to 50 training credits, which can either be converted into time off for learning or into money to pay conference, travel or similar fees related to learning. Training budgets are typically to be spend on training related to the employee's job, as illustrated by the Austrian example below.

> *Right now, the marketing department takes a course in photography. We have a list of further training courses in our internal system, where everyone can access and see what opportunities there are for further training. A colleague, a software developer, said that she still has a few credits left this year and would like to take this photography course, and I'm sorry to say that this is simply not the purpose of your further training as a software developer, but simply something for marketing.*
>
> *Software company, Austria*

In one rare case, a large Austrian retailer, grants employees a EUR 1 000 training budget that can be used without restrictions, even for courses that are not directly related to their job. In addition, mandatory and other job-related training is provided and does not fall under this budget allocation.

Not all employees who have access to individual training budgets make use of the opportunity. The aforementioned Austrian computer-programming business estimates that about 80% of employees use their credits in a given year. The interviewed HR representative said that they lacked an understanding of why some of the employees did not use all their training credits.

Evaluating training

Enterprises spend significant amounts of time and resources on training. Yet, existing evidence suggests that they rarely assess if training produces the desired results and where they do, they only use basic methods. Some experts argue that HR departments of enterprises spend most of their resources on the development and implementation of training, and then "hope for the best" (Kirkpatrick and Kirkpatrick, 2010[18]).

Training evaluation could help companies understand the effectiveness of their training programme in achieving individual, group or organisational goals through systematic investigation of data (Aguinis and Kraiger, 2008[19]; Goldstein, 1986[20]). This sub-chapter presents new evidence from the enterprise case studies on i) how training evaluation take places in enterprises; ii) what methods they use for the assessment of individual behaviour and organisational performance; and iii) what obstacles they face in the assessment of training outcomes.

Existing evidence on training evaluation

The **academic literature** on training evaluation primarily focuses on the theory of training evaluation, notably on different training evaluation models and taxonomies. These models set out at which levels the effects of training can be assessed (e.g. individual, group or organisational levels) and suggest evaluation criteria (e.g. learning, behaviour change or organisational results). There are numerous training evaluation models suggested in the literature, the most prominent and influential of which is more than 60 years old (Langmann and Thomas, 2019[21]; Sitzmann and Weinhardt, 2019[22]; Passmore and Velez, 2015[23]). Kirkpatrick's model of training evaluation suggests looking at four steps to evaluate training (Kirkpatrick, 1979[24]). The steps become successively harder to measure and require increasingly sophisticated data collection techniques:

- **Reaction**: How participants reacted or responded to the training, for example if they found it engaging or relevant to their jobs. This may be assessed, for example, through a satisfaction survey at the end of the training.

- **Learning**: What participants have learnt from the training, i.e. which knowledge, skills or attitudes they have gained. Ways of assessing learning includes quizzes that test the knowledge gained or practical tests.
- **Behaviour**: If participants put their learning into practice when they are back on the job. This is typically evaluated through a self-assessment or the observations through supervisors at work.
- **Result**: What the impact of the training is on wider organisational goals and objectives.

Despite its popularity, the Kirkpatrick models has attracted much criticism, for example for implying causal links between the different steps, while this is not supported by empirical evidence (Bates, 2004[25]; Alliger and Janak, 1989[26]). There is an abundance of alternative training evaluation models. Some of these expand Kirkpatrick's four steps to include an analysis of societal impact of training (Kaufman and Keller, 1994[27]) or the evaluation context (Warr, Bird and Rackham, 1970[28]). Other models deviate from Kirkpatrick by taking quantitative approaches, for example by suggesting estimating the return of investment of training (Chmielewski and Phillips, 2002[29]), or by promoting qualitative approaches to understanding of the effect of training by looking at success cases (Brinkerhoff, 2005[30]). Multi-level and omnidirectional models suggest that the levels at which training evaluation takes place and the evaluation criteria used are dependent on purpose and use of the evaluation (Langmann and Thomas, 2019[21]; Sitzmann and Weinhardt, 2019[22]).

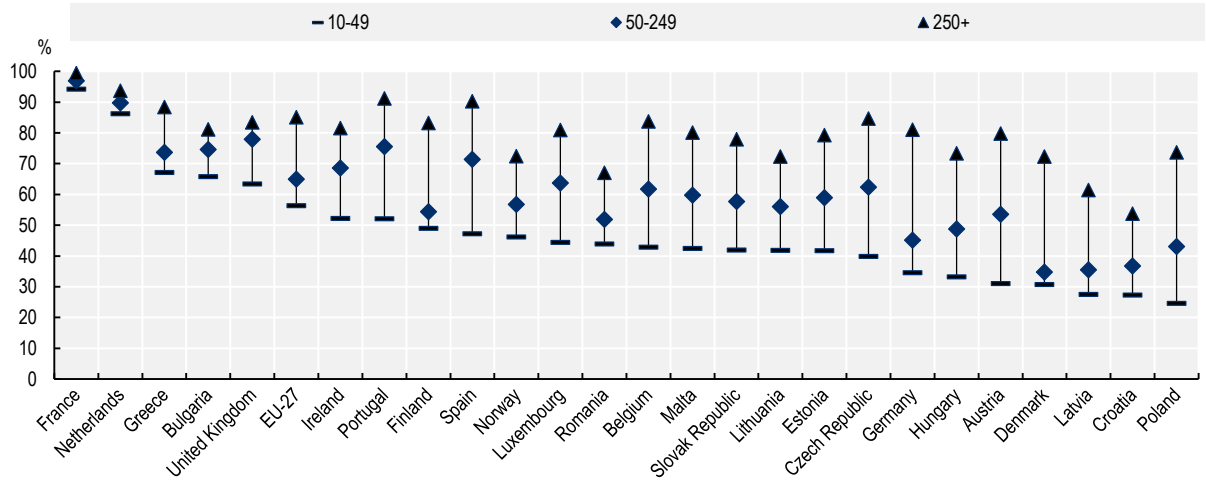
It is worth noting that the quantitative approaches promoted in the psychology literature on training evaluation overlap with the approaches observed to analyse the benefits or returns of training observed in the economics literature (see also Chapter 3). The difference between both bodies of research is that the psychology literature focuses more on HR practices on training evaluation, while the economics literature focuses on analysing the impact of training often outside organisational practice and using non-organisational data sources.

What all models for training evaluation have in common is that any empirical evidence on their application is scarce. In practice, it is thought that enterprises undertake training evaluation only hesitantly and unwillingly, while their methods for assessment are mostly basic, such as self-administered 'training evaluation forms' filled in by participants (Langmann and Thomas, 2019[21]; Aragon and Valle, 2013[31]).

Data from firm-level surveys provide some high-level insights on the prevalence of training evaluation in enterprises and the methods used. According to CVTS data, a surprisingly high share of companies assesses the outcomes of training. On average across the EU-27, 59% of enterprises with ten or more employees assess the outcomes of at least some of their training activities (Figure 4.8). However, there are large differences between countries and differently sized enterprises, as well as some more limited differences between sectors. While 99% of large enterprises in France report assessing the outcomes of training, only 25% of small enterprises in Poland do.

Figure 4.8. Enterprises assessing outcomes of training

Percentage of enterprises assessing the outcomes of training by size, 2015

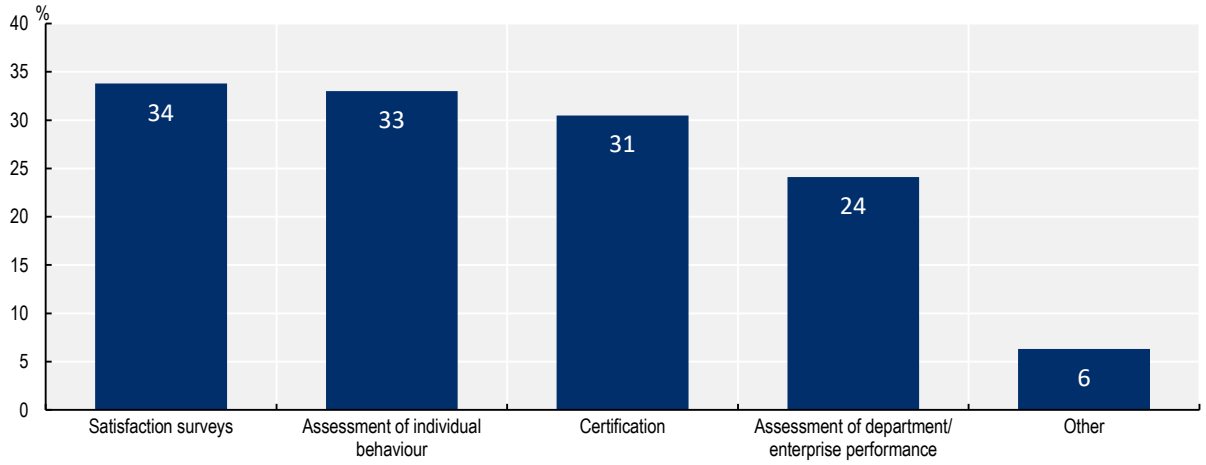


Note: Enterprises assessing outcomes of some or all CVT activities.
Source: CVTS 2015, Eurostat, [trng_cvt_31s].

The CVTS also provides some limited information on the types of methods used for training evaluation (Figure 4.9). On average across the EU-27, basic satisfaction surveys of participants are most frequently used (34%), followed by an assessment of participants behaviour or performance in relation to the training objectives (33%) and certification after a written or practical test (31%). Only 24% of enterprises evaluate the impact of training on the performance of the relevant departments or the enterprise as a whole. This data highlight a small deviation of the Kirkpatrick model, in that more enterprises assess behaviour than learning.

Figure 4.9. Methods to assess training outcomes

Percentage of enterprises using the specified methods to assess outcomes of training, EU-27, 2015



Note: Enterprises assessing outcomes of some or all CVT activities.
Source: Eurostat, CVTS 2015, [trng_cvt_32s].

Differently sized enterprises use the various training evaluation methods to a different extent. Large enterprises are around twice as likely to implement satisfaction surveys and certify training as small enterprises, while the evaluation of the effect of training on department or enterprise performance is used to a roughly similar extent across size groups (not displayed in graph). This may be because satisfaction surveys and certification necessitate the set-up of additional systems, which smaller enterprises have limited capacity for. Assessing individual behaviour, department and enterprise performance, by contrast, may make use of existing systems of performance measurement, such as key performance indicators.

New evidence on training evaluation

The qualitative evidence collected in the context of this study facilitates a deeper understanding of i) how training evaluation take places in enterprises; ii) what precise methods they use for the assessment of individual behaviour and organisational performance; and iii) what obstacles they face in the assessment of training outcomes.

Approaches and methods used for training evaluation

The majority of enterprises in the sample assesses the benefits of training, either by collecting individual's reaction to training (e.g. through participant surveys), assessing their learning (e.g. through testing), analysing their behaviour (e.g. through observation at work) or by evaluating the effect of training on company results (e.g. through monitoring performance data). This aligns with the findings of the firm level surveys. There is some indication that there are sectoral differences, with enterprises providing knowledge-intensive services evaluating training less frequently than other enterprises in the sample. This may be explained by the fact that these enterprises provide training on skills which are difficult to assess, i.e. training on soft skills (see Chapter 2). As observed in the CVTS data, small and medium enterprises in the sample are less likely to evaluate training than companies with more than 250 employees.

New data from the case studies gives some more life to the information on assessment methods collected in the CVTS. It shows that enterprises use a wide range of methods to evaluate training and that the majority of enterprises uses more than one method. Table 4.6 presents the different types of evaluation methods reported by respondents and how frequently they were reported. It also relates the methods used back to the steps of the Kirkpatrick model.

Table 4.6. Type of methods used to evaluate training

Dimension	Methods	Incidence in the sample	More often seen in
Reactions	Verbal feedback	Very common	Knowledge-intensive services
	Participant survey	Common	No clear patterns emerge
Learning	Certification	Common	Knowledge-intensive services
	Other assessment	Rare	No clear patterns emerge
	Competence database	Very rare	No clear pattern emerge
Behaviour	Monitoring at work	Very common	Low-tech manufacturing
Results	Performance data	Very rare	Services
	Customer satisfaction	Very rare	Services

Note: Interviewees were asked if and how they assess if the expected benefits of training materialise; incidence relative to the share of enterprises that evaluate training.
Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

The most common method that can be observed is **verbal feedback**, used in approximately half of the enterprises in the sample. Its popularity is explained by its simplicity. In most cases, feedback on participant's experiences of the training and/or if the training should be offered to other individuals in the

enterprises is collected ad-hoc by line, department or HR managers. Verbal feedback on the training is also collected in the context of the appraisal process. Participant surveys or other forms of standardised training evaluation forms are slightly less frequent. In rare cases participant surveys link to online learning platforms and feedback is directly provided there. One Italian enterprise in the publishing business highlighted that they were in the process of developing an integrated learning platform that would allow individuals to directly rate teacher performance, training contents and impact on the job.

In line with what is observed in the CVTS, **monitoring training participants at work** following training participation is a very common method to evaluate training. In the sample, it is most common in low-tech manufacturing enterprises, where supervisors observe training participants and assess if they apply their (new) skills when operating machinery. For example, a supervisor in an Austrian manufacturer of rubber and plastic products mentioned that they evaluated the effect of training by provoking a fault on a machine and observing if the employee was able to correct the fault.

The use of **certification** to assess the outcomes of training is still relatively common in the sample, while other forms of direct assessments of skills are rare. In the sample, it is typically formal, compulsory or external training that is being certified. An Estonian enterprise specialised in the repair of machinery for example, obtaining a certificate is the precondition for specialists to be able to perform certain tasks (see also Chapter 2). Certification should only be considered a method for the evaluation of training when obtaining it involves an assessment of the skills or knowledge acquired during the training. Documents that simply confirm participation in training are not a method to assess outcomes of training. In practice, however, enterprises seem to use the word certification of training loosely and it is not always clear that an assessment takes place.

Other types of assessment that do not lead to certificates are typically knowledge tests at the end of training. Interestingly, one Italian enterprise in the sample internally re-assesses individuals that have obtained a certification, if the enterprise is not sure that the competences have not been fully acquired. Three enterprises in the sample mention the use of **competence databases** to evaluate training. They provide limited information on how these databases are used to evaluate the training in practice. They seem to record the skills and competences of employees in a software tool, which facilitates the monitoring of any changes following training participation. No information on how the skills and competences of employees are assessed is provided.

Finally, data from the case studies suggest that enterprises only rarely assess the effect of training on the wider performance of departments or the organisation. Few enterprise use **performance data** to evaluate training and where they do, they make use of existing business monitoring systems. One Austrian enterprise specialised in providing business support activities, for example, monitors if key performance indicators (e.g. customer satisfaction and sales) differ before and after the training provided. A small number of enterprises in the service sector rely on **customer feedback** to assess the effects of training.

In summary, the case studies confirm the existing findings from the literature and quantitative surveys that, while many enterprises engage in the evaluation of training, they do so using basic methods and only very rarely assess the effect that training has on the wider performance of the enterprise. There are rare cases of planning training, anticipating its benefits and measuring them, however: One Irish manufacturing company stated to have a formal system of weekly planning, target setting, reporting and review that was linked to performance and the demonstration of skills acquired in training. One Austrian enterprise emphasised that the purpose and desired effect of each training course was defined a-priori. The effect of training was then assessed by comparing key performance indicators before and after training had occurred.

Obstacles to training evaluation

The case studies provide only limited information on what prevents enterprises from evaluating training. Several enterprises interviewed noted that they thought that the **skills conveyed in some training are**

too difficult to measure. One enterprise voiced that they found it easier to assess the learning outcomes for production workers, because they could test if an individual was able to fix broken machinery, while the skills of office workers were much more difficult to assess in general.

> *Measuring whether benefits of training materialise is a big challenge that has not been mastered yet. It is hardly possible to assess to what extent a conflict management seminar has paid.*
>
> *Advertising/Market research company, Austria*

A small number of enterprises mentioned **lack of time** as one of the key obstacles for evaluating training. Even where external providers collect some information on training outcomes, some enterprises do not have the capacity to analyse and make use of the information.

> *There is no assessment done by the company. For external training, there is a satisfaction survey, but the company has no time to exploit the results.*
>
> *Manufacturer of machinery and equipment, France*

Finally, some firms see a trade-off between monitoring and motivating employees. Not assessing the outcomes of training is a conscious choice for them and aims to give employees the responsibility for their own learning process.

> *We find it hard to quantify returns. We have a culture of empowering and encouraging employees to take control of their own learning.*
>
> *Software company, Ireland*

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Note

[1] It should be noted that it does not provide information of the extent to which enterprises apply full TNA.

5 Why and how should enterprises be supported?

This final chapter aims to assist governments and social partners in the design and implementation of better policies in support of training in enterprises. Firstly, the chapter analyses the rationale for policy intervention, making a distinction between the rationale to support small and medium enterprises and large firms. Secondly, it provides an overview of the available instruments that policy makers can consider to support enterprises, as well as their advantages and disadvantages. Thirdly, it provides seven key questions that governments and social partners may want to consider when designing and implementing policies.

In Brief

Why and how should enterprises be supported?

Understanding why and how enterprises should be supported is crucial for designing and implementing effective and efficient training policies. Broadly speaking, there are two key arguments that justify policy intervention to support enterprises. Firstly, policy intervention can be necessary to reduce attitudinal, informational, time or financial barriers faced by small and medium enterprises or to solve co-ordination problems across all firms. These interventions can maximise firm performance in view of achieving greater productivity growth, higher wages and higher levels of well-being, ultimately leading to higher economic growth. Secondly, policy intervention can unlock the positive externalities of training and improve equity of labour markets, realising the wider economic and social benefits of training.

To support enterprises, policy makers can rely on a 'tool-box' with five main types of instruments, namely i) information and guidance; ii) capacity building; iii) financial incentives; iv) the direct provision of training; and v) regulatory instruments, such as laws and agreements. Based on the evidence on why enterprises should be supported, only some of the key findings from the case studies warrant policy intervention (see Table 5.1). In many cases, policy makers have multiple instruments at their disposal, implying that it is important to consider their advantages and disadvantages, before intervening.

Table 5.1. Overview of why and how enterprises should be supported

Key finding from the case studies	Chapter	Why intervention makes sense	How intervention can happen	Target group
Some enterprises have not been successful in fostering a learning environment	Chapters 2 and 3	Reducing attitudinal barriers	Information and guidance Capacity building	SMEs
Lack of time is the biggest obstacle to increasing training provision in enterprises	Chapter 3	Reducing time and financial barriers	Information and guidance Capacity building	SMEs
The adoption of online learning is slow in enterprises	Chapter 2	Reducing attitudinal and informational barriers	Information and guidance Financial incentives Direct provision of training	SMEs
There is a positive relationship between having a dedicated training specialist and the generosity of training	Chapter 4	Reducing attitudinal and financial barriers	Information and guidance Capacity building	SMEs
Many enterprises struggle to systematically assess their skills and training needs	Chapter 4	Reducing informational barriers	Information and guidance Capacity building	SMEs
Most enterprises do not have structured processes for selecting training providers	Chapter 4	Reducing informational and financial barriers	Information and guidance Capacity building	SMEs
Enterprises use only basic methods to assess the outcomes of training	Chapter 4	Reducing informational and financial barriers	Information and guidance Capacity building	SMEs
Certification of training for soft skills and IT skills is currently not common in enterprises	Chapter 2	Unlocking positive externalities	Financial incentives Regulatory instruments	All firms
Enterprises do not seem to offer training programmes targeting green skills and management practices	Chapter 2	Unlocking positive externalities	Financial incentives Direct provision of training Regulatory instruments	All firms
Few enterprises offer explicit training opportunities for low-skilled adults, those at higher risk of automation and migrant employees and those at higher risk of automation	Chapter 3	Improving equity of labour market outcomes	Financial incentives Direct provision of training Regulatory instruments	All firms

Introduction

Previous chapters of this report have opened the "black box" of training in enterprises. Policy makers and social partners now have a richer evidence base on what learning opportunities enterprises provide, why enterprises offer or do not offer training and how they make their decisions.

Deriving policy implications from these findings is not straightforward. Transforming the key findings of this report into actionable policy solutions requires a good understanding of why policy makers and social partners should intervene to support enterprises in the first place, which enterprises they should support, and how they could do so. Without such knowledge, there is a risk that support policies may be ineffective and inefficient. In particular, they may result in deadweight losses, i.e. a situation where enterprises would have made the same decisions about the provision of training had they not been supported by the policy.

This final chapter aims to assist policy makers and social partners in designing and implementing better policies in support of training in enterprises. It starts by analysing the rationale for policy intervention, making a distinction between the rationale to support small and medium enterprises (SMEs) and large firms. Then, it highlights the main instruments that policy makers may want to consider to support enterprises. Lastly, it highlights seven "key questions" that governments and social partners may want to consider when designing and implementing policies.

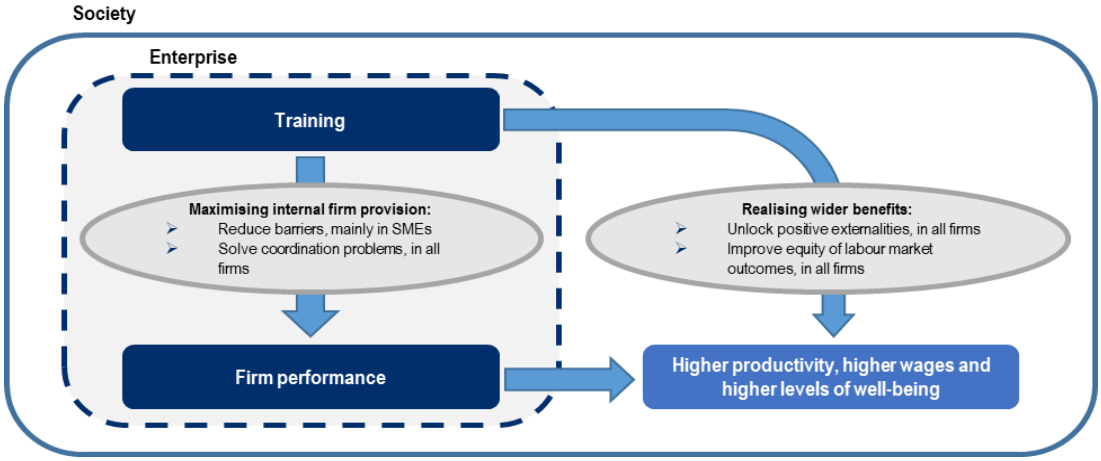
Rationale for policy intervention

Training brings substantial benefits in terms of **economic growth**, as well as **individual and societal well-being** (Chapter 3). Policy interventions can help realise or maximise these benefits in two key ways (Figure 5.1). **Firstly, policy intervention can be necessary to address underprovision of training within enterprises.** Firms might underprovide training with respect to the level that would maximise their productivity and performance, because they face a range of barriers, which might be attitudinal, informational or financial. Firms might also underprovide training because they have co-ordination problems both internally, for instance if they fail to agree how to share the benefits of training with their own employees, and with other enterprises, for example if they do not provide training due to poaching concerns. Interventions to reduce these barriers or solve these co-ordination problems can unlock the full benefits of training for enterprises, leading to higher productivity, higher wages and higher levels of well-being overall.

Secondly, policy interventions can be warranted to realise the wider benefits of training beyond the individual enterprise, which are not accounted for by the enterprise in its decision to offer training. The provision of training leads to positive externalities, related to greater innovation, productivity, better health outcomes and less polarising social and political attitudes, and can help foster equality in labour market outcomes (see Chapter 3). Enterprises might not consider these wider benefits, when making their training decisions, because they focus on their own private benefits (see Chapter 3). Public intervention targeting both SMEs and large firms alike can help ensure that these wider economic and social benefits are fully realised.

Finally, policy intervention can help improve the resilience and efficiency of the training system as a whole, for example by improving the quality of training opportunities and the responsiveness of the training provision to labour market demands. These types of interventions that address systematic issues of the training system are not considered in this chapter and Figure 5.1 below, because they do not target enterprises directly.

Figure 5.1. Rationale for public intervention through training policies



Source: OECD elaboration of the findings from the economics and policy literature and the case studies.

Maximising firm productivity and performance

Reducing barriers to training provision

Public support and support from social partners can help **reduce attitudinal, informational and financial barriers** that may cause enterprises to underprovide training. Some enterprises might be reluctant to adopt work practices and managerial attitudes that are conducive to greater levels of engagement in training and informal learning, because they may struggle to see benefits of fostering a learning environment (see Chapter 2). Other firms may not have sufficient knowledge or information about their own skill needs and the available training opportunities (see Chapter 4). Even when enterprises have sufficient motivation and information, they might experience credit and liquidity constraints that prevent them from developing the internal capacity to organise training or pay towards training courses (see Chapters 3).

The case studies confirm the importance of attitudinal, informational and financial barriers and expand the evidence base in three ways. Firstly, the case studies highlight that **time-related barriers** are the biggest obstacle to increasing training provision in enterprises (see Chapter 3). Traditionally, policy interventions have not focused on reducing time-related barriers *per se,* but on financial support that enable enterprises to swap time for output. The case studies suggest that time-related barriers might also be related to the lack of information and organisational capabilities. Firms might struggle to identify and implement effective ways to combine training with work responsibilities, such as concentrating training in periods of low production (see Chapter 3).

Secondly, according to the evidence from the case studies, medium-sized enterprises in particular seem to be exposed to substantial **attitudinal and informational barriers** that prevent them from organising an effective delivery of **online training** (see Chapter 2). Before the outbreak of the pandemic, the use of online training in medium enterprises seemed to be an exception. This was likely due to low levels of digital readiness and a lack of information on how to deliver online training successfully. The experiences during the pandemic did not contribute to weaken these barriers, as several medium enterprises continued to struggle to plan and co-ordinate online delivery.

Thirdly, the case studies provide new evidence on **factors that might be driving financial barriers.** According to the case studies, few firms implement structured processes to select external training providers and only a handful of enterprises assess the benefits of training systematically (see Chapter 4).

Improvements in these decision-making areas can contribute to achieve some cost savings and free up budget to finance training opportunities that may not be currently affordable.

The academic and policy literature shows that SMEs **are generally more likely to experience these barriers** than large firms are. Acquiring information about training opportunities for SMEs can be problematic, because unlike large firms, they often do not have a dedicated human resources unit and can have little time to spare among existing staff (International Labour Organisation, 2017[1]). Even if SMEs have adequate information about their own needs and the available options, they may still find it difficult to pay towards training opportunities, because they are more likely to be liquidity-constrained and can face higher unit costs per worker, when compared to large firms (International Labour Organisation, 2017[1]). As discussed in Chapter 1, the case studies in this report focus on medium and large enterprises. The evidence gathered in the case studies confirms that large enterprises are less likely to experience attitudinal, informational or financial barriers, compared to medium firms. This strengthens the rationale for focusing public interventions to **reduce barriers** to internal training provision **on SMEs**.

Solving co-ordination problems

Government and social partners can also intervene to help solve **co-ordination problems**. Barriers to training arise as a result of shortcomings in the firm's capabilities or internal decision making processes, which are typically under the direct control of the management. Conversely, co-ordination problems are caused by the management's failure to co-operate effectively with the firm's employees or with other enterprises. Employees and enterprises might fail to find effective arrangements to share the benefits of training. For instance, employees might demand a wage increase, after they have received the training, which the enterprise is unwilling or unable to accommodate (a "hold-up" problem). Employees might also be "poached" by competing firms, after they have been trained, leading to a negative return on investment for the enterprise that provided the training (see Chapter 2). If these co-ordination problems are not resolved, enterprises might decide to provide a lower level of training than the level that could maximise their own productivity and performance. Interventions by governments and social partners can help align the expectations of employees and enterprises and mitigate poaching concerns (Brunello and Wruuck, 2020[2]).

Co-ordination problems between different enterprises might also lead to an under-provision of training on health, safety and security. Enterprises might compete with each other to reduce costs, by decreasing their expenditure on training targeting health, safety and security in the workplace. This might enable each enterprise to gain or sustain its competitive advantage over its rivals in the short term, but might come at the expense of greater reputational risks in the longer term and lower employee well-being. Public intervention can prevent this "race to the bottom", by setting some minimum standards for the delivery of training on health, safety and security.

The economics and policy literature suggests that interventions to address co-ordination problems should **target both SMEs and large enterprises alike.** However, they generally deliver higher benefits for SMEs, given that these firms may have lower bargaining power in wage negotiations and they face comparatively higher losses if their employees are "poached" by competing firms.

Contrary to the insights from the economics literature, there is **little evidence from the case studies that co-ordination problems lead to underprovision of training** in enterprises. Employers do not report that poaching concerns or co-ordination problems with their employees limit their training offering (see Chapter 3). These findings are consistent with survey evidence from England. In the Employers Skills Survey (ESS), which gathers evidence on factors affecting training provision in more than 60 000 businesses, only 1% of enterprises report that they have not provided training because they were concerned that the trained staff will be poached by other employers (Education, 2020[3]). Similarly, enterprises in the ESS do not report that co-ordination problems with their employees were an important reason for not providing training.

There are two likely explanations for the low incidence of co-ordination problems in both the case studies and previous survey evidence. It is possible that firms simply do not take co-ordination problems into consideration when making their training choices. This might happen because they underestimate the mobility of their employees or believe that the training they provide cannot be easily leveraged in other enterprises. Alternatively, existing regulatory arrangements (see the following section) may already be sufficient to minimise co-ordination problems, both between employees and enterprises and between different enterprises. The second interpretation likely holds for training on health, safety and security in the workplace. Meeting regulatory requirements on health, safety and security is one of the main drivers of training for enterprises in the case studies (see Chapter 3), suggesting that policy intervention has avoided a "race to the bottom" in training provision. It is however difficult to evaluate the effectiveness of existing policy intervention in solving co-ordination problems for programmes covering other types of content, such as technical, soft and IT skills.

Realising the wider economic and social benefits of training

When making decisions about training, enterprises generally take into account their own private benefits, such as productivity and firm performance (see Chapter 3). Yet, training can bring a range of positive benefits for individuals and society as a whole beyond the private benefits to the enterprise itself (see Chapter 3). Policy intervention can help realise these wider economic and social benefits by unlocking positive externalities and improving equity of labour market outcomes.

Generally, policy interventions to realise the wider economic and social benefits of training should **benefit both SMEs and large enterprises** alike. However, given their exposure to informational and financial barriers, SMEs might again require more support to ensure that they are in a position to provide the level of training that would be most beneficial from a social perspective.

Unlocking positive externalities

Policy intervention can help realise the **positive externalities** of training in terms of productivity and societal well-being. For example, training is a complement to technological change and innovation, because it enables individuals to develop skills, knowledge and abilities that can facilitate the adoption of innovative work practices and new technologies (see Chapter 3). Low levels of training might lead to a lower quality workforce, discouraging employers from investing in innovation. In turn, low levels of innovation make an investment in training less attractive for firms or individuals alike. This means that, in the absence of policy intervention, an economy might be stuck in a low-skill equilibrium of low innovation, low training provision and low productivity (Acemoglu, 1997[4]). More broadly, participation in training is related to improved health and well-being, social and political attitudes and higher participation in civic, political, and cultural activities (see Chapter 3).

The case studies shed light on two additional areas where policy intervention may be necessary to realise the positive externalities induced by training. Firstly, policy interventions might be important to foster the **provision of certified training among employers**, in particular for soft and IT skills. As discussed in Chapter 2, few training opportunities targeting soft and IT skills, and only about half of training programmes targeting technical, practical or job-related skills lead to a nationally recognised qualification, certificate or licence. Enterprises might be reluctant to provide certifiable training, because of poaching concerns, larger organisational costs and lower flexibility in the choice of the learning content. However, participation in certified training benefits their employees, if they leave the firm, and their future employers, because it can reduce hiring frictions in the labour market, by making skills more visible. Policy intervention can help realise these benefits, by making it easier and more affordable for enterprises to provide training leading to a qualification, certificate or licence.

Secondly, policy interventions may be useful to foster the adoption of **training targeting green skills and green management practices**. Programmes targeting green skills and green management practices

might be important to facilitate the green transition in the context of national recovery plans and the EU Green Deal. For instance, a recent study suggests that green management practices can foster investment in green-friendly technologies and production processes (Martin et al., 2021[5]). Yet, no enterprise in the case studies reports implementing such programmes or programmes targeting green skills, although it is possible that green skills are covered in existing programmes (see Chapter 2). The under-provision of green training programmes may be due to the fact that the benefits from climate change action are realised at the social or even global level, which enterprises do not take into considerations when making their training choices. This would call for policy intervention to realign firm-level incentives with wider societal objectives. However, the evidence is still limited, and more work is necessary to evaluate both the incidence of green programmes and the factors driving their adoption.

Improving equity of labour market outcomes

Policy intervention can also be justified by **equity considerations** to support individuals disadvantaged in the labour market (Brunello and Wruuck, 2020[2]). For instance, higher digitalisation and automation may increase the returns to training for high-skilled individuals, but this could happen at the expense of the lower skilled, who may face a higher risk of technological displacement. Public intervention can help ensure that lower-skilled individuals receive adequate reskilling and upskilling opportunities to adapt to automation and technological change.

The case studies confirm that policy intervention can play an important role in **improving the equity of labour market outcomes**. Several enterprises covered in the case studies offer training opportunities for immigrant employees. When this happens, the objective is to enable employees to take up on higher-level responsibilities in the company, for example by developing better language skills, as opposed to ensuring that can integrate more easily in the labour market and society of the host country (see Chapter 2). Similarly, a small number of enterprises offer training opportunities to employees exposed to a higher risk of automation (see Chapter 3). Expanding public intervention in support of these vulnerable groups can help ensure that they receive the necessary training to be successful in the labour market.

Policy-options for supporting enterprises in training

Once rationale and target group for intervention are established, governments and social partners have a range of policy instruments available to support enterprises in providing training. This '**tool-box' includes five main types of instruments**, namely i) information and guidance for enterprises; ii) capacity building of enterprises, iii) financial incentives to steer training provision, iv) the direct provision of training and v) regulatory instruments such as laws, agreements or other institutional arrangements (Table 5.2). It should be noted that this report focuses on instruments to support enterprises in the provision of training and not on instruments that target individual access to training, such as individual financial support or career guidance for individuals. There is a degree of overlap between different types of instruments. Capacity building, for example, is often implemented through subsidising consultancy services, which can also be considered a financial incentive.

The following sub-chapter discusses the five main types of instruments, highlighting what they aim to achieve, how they function, as well as their advantages and disadvantages. It also provides concrete examples of the application of these instruments, drawing on evidence from the case studies and the wider policy literature, where no example could be identified in the case studies. An in-depth review of policy tools supporting SMEs' investment in skills in the EU is can be found in (OECD, 2021[6]).

Table 5.2. Overview of policy instruments to support training in enterprises and their rationale

Type of instrument	Examples	When using this instrument makes most sense
Information and guidance	• Awareness raising campaigns • Information services • Guidance services	Reducing informational barriers Reducing attitudinal barriers
Capacity building	• Consultancy services • Training employee representatives • Funding training networks	Reducing informational barriers Reducing attitudinal barriers Reducing financial barriers Reducing time barriers Overcoming co-ordination problems
Financial incentives	• Subsidies • Tax incentives • Training levies • Loans	Reducing financial barriers Reduce time barriers Overcoming co-ordination problems Unlocking positive spill-overs Improving equity of labour market outcomes
Direct provision of training	• Provision of training with specific content • Provision of training with specific mode of delivery	Reducing financial barriers Overcoming co-ordination problems Unlocking positive spill-overs Improving equity of labour market outcomes
Regulatory instruments	• Legislation • Collective agreements • Pay-back clauses	Overcoming co-ordination problems Unlocking positive spill-overs

Information and guidance for enterprises

Most enterprises do not have perfect information about the impact that megatrends will have on current and future skill needs, the benefits that training could deliver in this context, as well as the training opportunities and support available to implement these (see Chapter 4). These are reflected in the attitudinal and informal barriers faced by enterprises in the case studies. Different types of instruments that provide information and guidance can be used to address these attitudinal and informational failures.

The functioning of information and guidance instruments is based on the assumption that by providing more information, enterprises will be able to make decisions that are more informed and change their behaviour. The advantage of information and guidance-based instruments is that they are relatively "light-handed", i.e. they do not impose behaviour change, but empower enterprises and individuals to make their own choices (OECD, 2002[7]). They are also adaptable to different context and purposes and can be cost-effective. Their disadvantage is that their success hinges on reaching those in need of information, and targeting such instruments is often difficult. Research suggests, for example, that public awareness campaigns aimed at low-skilled adults often fail because they do not identify as the target group (OECD, 2019[8]; Commission, 2012[9]). A further challenge for information and guidance instruments is that it can be difficult to anticipate how enterprises will change their behaviour because of it (UK National Audit Office, 2014[10]).

International examples

Information and guidance instruments are often part of a wider policy-package to support training in enterprises. Examples of such instruments include:

- **Awareness raising campaigns** aim to increase the understanding of enterprises and individuals of the benefits of training and make it more popular. Communication channels for awareness raising campaigns may include on the ground campaigning, for example at trade fairs, the use of

print and online media, as well as TV and radio spots. In **Switzerland**, for example, the employers' confederation and the cross-industry initiative *digitalswitzerland* launched the **campaign *#Lifelong Learning*** in 2019 (Digitalswitzerland, n.d.[11]). The online campaign aims to create a lifelong learning culture and inspire the Swiss population and employers to engage in training. It involves a pledge by more than 140 employers (status June 2021) to be an effective and sustainable advocate for life-long learning. The campaign aims to commit more employers to the pledge. It further features more than 100 inspirational videos of employees throughout Switzerland that have made positive experiences with lifelong learning and an online interactive tool *Sea of Lifelong learning* that helps employers think about motivating, facilitating and leading lifelong learning in their organisation, amongst others.

- **Information services** convey knowledge – for example on labour market conditions, skill needs, training opportunities or financial support options – in person, through printed information materials or online. An example of such an information service is the **German Competence Centre For Securing Skilled Labour** *(Kompetenzzentrum Fachkräftesicherung, KOFA)* (KOFA, n.d.[12]), although it should be noted that its services go beyond pure information provision and include consultancy services (OECD, 2021[6]). KOFA runs an online platform that aims to support SMEs in finding, keeping and skilling their employees. The platform targets individuals working in management and human resource functions. The information provided on the platform is extensive and includes articles and expert interviews, studies on skill supply and demand, concrete recommendations for action and checklists, good practices and access to webinars. It also includes a benchmarking tool that allows enterprises to compare their HR processes with those of other firms. KOFA is implemented by the Cologne Institute for Economic Research, the research institute of the German confederation of employers, and funded by the Federal Ministry for Economic Affairs and Energy. An interdisciplinary team of researchers and media experts develops the content of the information platform.
- **Guidance services** go further than information provision. They are typically provided by trained and experienced guidance counsellors that guide the decision-making process of enterprises over a longer period. Evidence from the case studies suggest that many enterprises in **France** make use of the guidance services provided by **Skills Operators** *(opérateurs de compétences, OPCO)* (Ministère du Travail, 2021[13]). These bodies are responsible for supporting SMEs in defining their training needs, identifying training opportunities and advising on the available financial support options. There are 11 sectoral OPCOs with 329 branches across France. OPCOs are run by social partners, which staff the board of directors of each OPCO with an equal number of representatives. Government representatives are involved in the board only in an advisory capacity. One in two French enterprises in the case study sample are in contact with OPCO with varying intensity. They are typically medium-sizes, although some larger enterprises also use the services.

Capacity building

How training is designed, delivered and implemented matters for maximising its impact on employees, enterprises and societies as a whole. It is intuitive that having the capacity and capability to plan, implement and evaluate training improves the training offer in enterprises. Evidence from the case studies suggests that having a dedicated training manager/specialist goes hand in hand with a more generous training offer (Chapter 4). Stakeholders can use different instruments to build the capacity of enterprises to make more effective and efficient training decisions.

Capacity building aims to increase the skills, experience, management and technical capability of firms, and specific actors within firms. It is typically delivered through technical assistance, training or other expert inputs (OECD, 2002[14]). The functioning of such interventions is based on the assumption that lack of capability – and time to build such capability – is the key obstacle for firms to make more effective and efficient decisions about training. They can target all stages of the decision-making process, for example

by helping enterprises develop suitable HR systems, or specific stages of the decision-making process, for example by training actors within firms in methodologies to assess current and anticipate future skill demands.

Policy makers are increasingly interested in the instrument of capacity building, given the often discouraging evaluation results of other instruments, notably information and financial incentives (Abramovsky et al., 2011[15]; Dauth, 2017[16]; Commission, 2012[9]; Görlitz, 2010[17]; Leuven and Oosterbeek, 2004[18]). Capacity building has the advantage that it works to strengthen firms from within, empowering decision-makers and minimising their dependence on other types of support in the future. However, to be successful, these measures must avoid imposing structures and processes top-down. Instead, interventions should be tailored to the specific firm, based on organisational needs and ensure that stakeholders within firms feel ownership over the new skills, experience and capabilities. To be sustainable, capacity-building interventions should not be one off, but may need to be implemented over a longer period.

International examples

A wide range of specific instruments to build the capacity of firms to plan, deliver and evaluate training exists. These target different actors, e.g. senior management, human resource divisions or employee representatives, and different stages of the decision-making process of training. The following examples highlight some of the key ways capacity building is implemented in the case studies and beyond:

- **Consultancy services** address the attitudinal and informational barriers of key decision makers within enterprises. These consultancy services typically include technical assistance and training for key staff in enterprises. There are no examples from the case studies of enterprises using such support, which may be due to the lack of such interventions in the countries under review or the limited reach of such measures. Examples from other countries illustrate how they work. In **Finland**, for example, the public employment services implements **Joint Purchase Training** (*Yhteishankintakoulutus/ Gemensam anskaffning av utbildning)* together with employers groups of employers (OECD, 2020[19]). It involves technical assistance for enterprises in the development of tailored training programmes, selection of providers and the selection of participants. Any training is subsidised by the PES. In **Germany**, the programme **People as Corporate Value** (*Unternehmenswert Mensch*) offers targeted and subsidised consultancy services for SMEs to develop modern, people-centreed human resource strategies. Enterprises can use the services of a consultant for a total of 10 days at a subsidised rate of 50-80% depending on the size of the company. An evaluation of the pilot of the programme attests that it has low deadweight losses, i.e. enterprises would not have taken up similar services, had they not participated in the programme. People as Corporate Value is supported by funds of the European Social Fund and co-funded by the Federal Ministry of Labour and Social Affairs (INQA, 2015[20]).
- **Training employee representatives** is another avenue to build the capacity of decision-makers on training. Measures to strengthen employee voice typically focus on employee representatives' bodies, rather than individual employees, as these can be more easily targeted by policy. Individual employees are then reached indirectly through these bodies. The case studies do not include any reference to such policy interventions, but examples exist in other countries. The **Unionlearn** programme in the **United Kingdom** is a long-standing initiative to improve learning opportunities for, and the employability of, employees. Through the programme the UK Trade Union Centre trains Union Learning Representatives, who promote the benefits of training in firms, help employees to identify their training needs and even organise training opportunities. Unionlearn has trained more then 40 000 Union Learning Representatives to date and reaches more than 250 000 employees with training every year. It demonstrates particularly high success in engaging adults with low skills, older workers and people with an ethnic minority background. Evaluations have repeatedly demonstrated the added value for unions, employers and employees and a high return

on investment of the programme (Dean et al., 2020[21]; Pennacchia, Jones and Aldridge, 2018[22]; Stuart et al., 2016[23]).

- **Funding training networks** can solve co-ordination problems between enterprises. Evidence from the case studies suggest that many governments support enterprises to pool their capacity for training, typically involving enterprises in the same region, sectors or in the same supply chain. In **Austria**, for example, some enterprises in the sample are part of **Impulse Qualification Associations** (Impuls-Qualifizierungs-Verbund, IQV), enterprise networks that come together with the aim of jointly planning and implementing qualification measures for their employees. They bring together three or more enterprises in a specific region, half of which must be SMEs. IQVs are funded by the public employment services, which cover the costs of 10 days of consultancy services for the development of HR strategies, training needs assessments and planning, the planning of training and the application for financial support, amongst others. Public employment services also subsidise 50% of any training costs for older adults or adults with low skills. Similarly, in **Ireland**, the government builds the joint capacity of enterprises through **Skillnet Ireland** (Skillnet Ireland, 2021[24]). It works with more 70 single- or multi-sector networks that bring together firms, primarily small and medium enterprises, to collaborate to address their skill needs. Services of the individual networks include, amongst others, assistance in the identification of skill and training needs, development of training plans, the development of new training programmes and advice on the evaluation of the effectiveness of training. Skillnet Ireland also subsidises training, through funding that is raised through a training levy (see subsection on financing below). Evaluations suggest that enterprises are satisfied with the offer, with more than three in four enterprises stating that participating in the network had a positive effect on the long-term performance of their business (Indecon, 2019[25]).

Financial incentives to steer training provision

Lack of time and lack of finances are considered the two key barriers to training by enterprises (Chapter 3). In reality, lack of time and financial barriers are often two sides of the same coin. The apparent lack of time derives from the need to fulfil client demands, with the goal to be a productive and ultimately profitable enterprise. Time for training is traded in for greater firm output.

Financial incentives can help enterprises overcome liquidity/credit constraints. They can also help align enterprise incentives with wider economic and societal objectives, by steering investment towards specific types of training, or training for specific target groups. For instance, it may not make economic sense for a specific enterprise to provide training to adults with low skills. Financial incentives can lower the cost of training this group and make investment in their skills beneficial from an enterprise perspective.

Financial incentives maintain enterprises' freedom to make training decisions based on their own assessment of costs and benefits. However, they come with a number of design challenges: They presuppose the existence of a training market, i.e. they require that appropriate training provision exists. It can be difficult to predict the exact effect of financial incentives, in particular when their objectives are not clearly defined and they operate in complex systems with various different incentives (OECD, 2002[7]; UK National Audit Office, 2014[10]). Deadweight losses, i.e. employers obtaining subsidies for training that they would have provided anyway, can occur. At the same time, they must be designed in a way that minimises administrative burden or otherwise risk low take-up by firms (OECD, 2017[26]).

International examples

A wide variety of instruments to set financial incentives exists, including subsidies, tax incentives, training levies and loans (OECD, 2017[26]):

- **Subsidies** are the most common form of financial incentives. They are a direct and flexible way of providing financial support for different types of training and target groups within enterprises. Subsidies can be provided using a range of delivery mechanism, such as vouchers, grants or credits. Evidence from the case studies suggests that many countries have multiple subsidies available to support enterprises. In **Ireland**, for example, several enterprises reported receiving subsidies from multiple sources, including from Enterprise Ireland (government agency to support Irish businesses in international trade), Skillnet Ireland (national agency for workforce learning), Solas (government agency for further education and training) or industry bodies such as Engineers Ireland. Solas provides subsidies for enterprises to upskill vulnerable groups through the programme **Skills to Advance** (Solas, 2021[27]). These groups include older workers, those working in lower skilled jobs or in jobs at risk of significant change due to technology. The subsidy is dependent on company size: large enterprises can receive a 50% subsidy, which increases to 70% for small enterprises. Eligible training costs include costs related to the identification of training needs, as well the development, design and delivery of training (Solas, 2019[28]).
- **Tax incentives** function similarly to subsidies, only that they build on the institutional arrangements for enterprise taxation. As subsidies, they can come in different shapes and sizes, for example in the form of tax allowances (deductibles from gross income), tax exemptions (income that is exempt of taxation), tax credits (deductions from tax due), tax relief (lower tax rates) and tax deferrals (postponement of payment) (OECD, 2017[26]; Torres, 2012[29]). In the case studies, enterprises did not mention the use of tax incentives to support their investment in training. However, they exist in many OECD countries. In **Germany**, for example, enterprises can benefit from tax allowances. Investments in training are considered business expenses and can be deducted from gross income in full, when declaring corporation tax (Dohmen, 2017[30]). While easy to implement, because they build on existing institutional arrangements, tax incentives are generally considered a blunt instrument, with high deadweight losses and little evidence of their effectiveness (OECD, 2017[26]).
- **Training levies** encourage employers to earmark training costs by paying into a training fund, which is shared with other enterprises. In **Italy**, for example, enterprises pay 0.3% of their payroll into one of 20 **Training Funds** (*Fondi Paritetici Interprofessionali*), each focusing on different sectors, size and types of enterprises (OECD, 2021[31]). Set-up in the early 2000s, they now cover over 900 000 firms and 10 million workers in Italy, managing funds of more than EUR 600 million per year. Some of the funding is distributed through public calls for training plans (*Avvisi*), which aim to steer training provision towards specific skills or types of workers. It is important to note that the Italian Training Funds have struggled to redistribute training costs between small and larger firms, with larger firms much more likely to receive financial support through the funds (OECD, 2021[6]; OECD, 2019[32]). Within the sample of Italian enterprises interviewed in the context of this study, more than three in five enterprises made use of the financial incentives provided through Training Funds. However, several enterprises interviewed voiced their dissatisfaction with the instruments, highlighting that the process was to complex and bureaucratic. This is a known problem of this instrument in Italy (OECD, 2019[32]).
- **Loans** can help address liquidity constraints as an obstacle to training provision, in particular for SMEs. The use of loans to incentivise training is not very common in OECD countries. One exception is **Korea**, where firms can obtain government loans in the **Vocational Ability Development Programme**. The loan covers up to 90% of the costs (or up to a maximum of KRW 6 billion) of the costs of establishing training facilities or purchasing training equipment. The repayment period is ten years. However, take-up of the measure is low, with only a few dozen enterprises taking up a loan every year (OECD, 2017[26]). Another example is the recently launched **Skills and Education Guarantee Pilot**, which is implemented by the **European Investment Fund** on behalf of the **European Commission**. The pilot will provide debt financing – including loans via financial intermediaries – to support the investment of European enterprises in skill development

and the utilisation of the skills of their employees at work. Other target groups of the pilot are individuals and education and training providers (EIF, 2020[33]).

Direct provision of training

Despite information, guidance and incentives, some enterprises may find it difficult to change their behaviour and offer more and better training. This may be because some interventions fail. Financial incentives, for example, may not reach their objectives if a training market does not exist or is not working properly, for example due to a lack of competition. It may also be because some types of training are seen by enterprises to primarily benefit society as a whole, rather than maximising their own profits. In this case, firms may be reluctant to fund and organise the training, even if it is strongly subsidised. In this case, governments can support enterprises by the direct (and free) provision of training or by providing the infrastructure for firms to improve their training.

The direct provision of training is equivalent to a full government subsidy, but where governments or social partners are also taking ownership of the co-ordination/organisation of training. It is typically limited in scope, focusing on either specific content – e.g. digital skills – or a specific mode of delivery – e.g. online learning. Governments can deliver such provision either through their public education and training institutions or through purchasing the services of private providers.

On the plus side, the direct provision of training allows policy makers to increase training that is beneficial for society and the economy as a whole. It can help alleviate inequalities in access to training between different kinds of enterprises and different kinds of employees. On the downside, governments may not be best placed to make decisions about the type of training needed and direct provision may be inefficient.

International examples

Evidence from the case studies and beyond suggests that many countries have programmes for the direct provision of training in enterprises that conveys specific skills, often digital skills. Further, countries also support enterprises with the provision of digital infrastructure to move training online, in particular in the context of the COVID-19 pandemic. Examples include:

- **Provision of training with specific content** free of charge for enterprises and individuals can help unlock the positive spillovers of training. This may be training on digital skills, leadership and management training or training on green skills. The **Estonian** case studies include an array of examples of direct training provision, typically co-funded by the European Union. Several enterprises interviewed had participated in the project **DigiABC** (Estonian Ministry of Economic Affairs and Comm., n.d.[34])**,** which delivered digital literacy training for (low-skilled) employees in the industrial sector between 2017 and 2020. It aimed at engaging 3000 employees and 1000 managers in training through their workplaces. The project was funded by the Ministry of Economic Affairs and Communications and delivered by Adult Education Centres in co-operation with the Estonian Employers' Confederation. Beyond this, Estonian enterprises interviewed in the case studies mention a number of other publicly funded training courses. These include training courses on lean manufacturing (5s) or service design funded by Enterprise Estonia, vocational training through the Estonian Unemployment Insurance Fund and language training for Russian speaking employees.
- **Provision of training with specific mode of delivery** can help lower financial barriers of enterprises to offer training. In the case studies, this typically related to the provision of digital infrastructure in the context of the COVID-19 pandemic, but infrastructure support can also relate to physical infrastructure such as classrooms or workshops. Enterprises' or professional associations are often the ones to deliver infrastructure support. In **Austria**, one enterprise reported to have received support by the Chamber of Labour to set up an online on-boarding academy for

new staff. This was reported to be the first comprehensive training programme in the company. Similarly, in **Estonia**, one enterprise located in a rural area reported using an online learning platform that had been delivered by a sectoral association, because it had difficulties accessing a private training provider.

Regulatory instruments

Regulation has traditionally been the first response by governments to react to policy issues, be this through legislation, collective agreements, contractual arrangements or other regulatory instruments (OECD, 2002[7]). Today, many governments have adopted the approach that regulation should only be used if satisfactory outcomes cannot be achieved by alternative approaches, as the ones described in the previous sections (see e.g. UK National Audit Office (2014[10])).

The principle of regulation is that it sets rules that 'command and control' the behaviour of actors, giving a clear indication of what to do and what not to do (OECD, 2002[7]; OECD, 2002[35]). In doing so, regulation can address co-ordination problems and protect enterprises, people, as well as realise positive spillovers such as environment protection. In the area of training in enterprises, many countries regulate that there is a minimum level of training related to health, safety and security in the workplace. However, regulation creates costs for governments and businesses, and may curb competitiveness and growth if ill designed and implemented (UK National Audit Office, 2014[10]).

International examples

There are different regulatory instruments that can minimise co-ordination problems and move enterprises to provide training that maximises the benefits for economies and societies as a whole. Examples include:

- **Legislation** sets rules about what enterprises can and cannot do. In the case studies, there is evidence of legislation that regulates specific types of training, typically health, safety and security training. In **Italy**, for example, safety representatives in enterprises are to receive 32 hours of paid health and safety training including on regulation and communication, with continuous training every year thereafter (ETUI, n.d.[36]). Collective arrangements may increase these entitlements. In **Estonia**, enterprises reported that first-aiders in enterprises needed to renew their certification at least every three years (see Chapter 2). Similarly, formal training on technical, practical or job-specific skills is regulated through legislation. Employees in several enterprises in the sample reported to be legally required to obtain licences or certificates to drive vehicles or operate machines, such as cranes or forklifts (see Chapter 2). For instance, workers in two **French** firms in the sample are legally required to hold safe driving aptitude certificates (*CACES, Certificat d'aptitude à la conduite en sécurité*). Employees are also required to obtain a certification to operate in jobs that are subject to occupational licensing (Hermansen, 2019[37]). For example, accountants across countries in the sample need to pass exams to become eligible to practice.
- **Collective bargaining agreements** and social dialogue can play an important role in minimising co-ordination problems. Collective bargaining agreements at the firm level provide a platform for the firm and employees to agree on how to share the benefits of training. Collective bargaining agreements at the industry level instead allow to equalise wages across firms. This can help mitigate poaching concerns, while ensuring that workers receive a fair share of the benefits of training. The **German industrial relations system,** for example, has historically addressed co-ordination problems by setting wages through sectoral bargaining between trade unions and employer associations. Although union density is only moderately high, employers' associations bind their members to these agreements, increasing their reach. By equalizing wages at equivalent skill levels across an industry, this system mitigates poaching concerns and ensures that employees are receiving the highest feasible rates of pay in return for the firm commitments they are making to firms. (Hall and Soskice, 2001[38])

- **Contractual arrangements, such as payback clauses**, which permit employers to recover at least part of their investment in training in the event that the trained employee leaves soon afterwards (OECD, 2017[26]). They reduce the risk of a loss of investment in training and can encourage employers to invest in skills. A cross-country review on payback clauses illustrates that payback clauses are either regulated through national legislation, at company-level or directly in individual contracts (Cedefop, 2012[39]). In **Ireland**, for example payback clauses are typically regulated in employment contracts. The modes of reimbursement have to be agreed between employer and employee before the start of training.

Practical considerations for policy makers

This chapter set out a rationale for supporting enterprises in the provision of training. It also gave an overview of the main instruments that policy makers have at their disposal. The following highlights some of the pertinent questions for policy makers to consider when planning inventions to support training in enterprises.

7 questions for policy makers to consider

1. **Do we need a policy intervention?** What do we aim to accomplish? Are there any attitudinal, informational or financial barriers for enterprises that need to be addressed? Do enterprises face co-ordination problems? Alternatively, are there any wider societal and economic benefits that intervention may achieve?
2. **What learning opportunities should be supported to achieve the policy objectives?** Do we know what skills are needed to compete regionally, nationally and internationally? Do we know what training/learning modes are effective? Can this be taken into account in the procurement process?
3. **What instruments are most appropriate to achieve our objectives?** What are their advantages and disadvantages? Do we need to combine different instruments to reach our objectives?
4. **Should we target specific types of enterprises or groups of individuals** with the intervention? Which ones? What is the rationale for this?
5. **What similar interventions have been tried in the past here or in other countries?** What have they achieved? How good is the evidence on their achievements?
6. **How will enterprises find out about the intervention?** Do we need to plan and fund outreach activities so that they are aware of the support available? How can we make access to the support as easy as possible?
7. **How will we evaluate the success of the measure?** Do we need to have an evaluation strategy and fund an independent evaluation?

Source: updated based on Salas et al. (2012[40]), The Science of Training and Development in Organizations: What Matters in Practice, *Psychological science in the public interest*, 13(2): 74-101.

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Annex A. Country notes

Overview of content

These country notes provide background information on the five countries where data collection for this study took place: Austria, Estonia, France, Ireland and Italy. They present key data from the Continuing Vocational Education and Training Survey (CVTS), namely on i.) learning opportunities provided by enterprises, ii.) the main factors limiting training provision and iii.) key features of the decision-making process on training in enterprises. The country notes also provide examples of policies to support training in enterprises, which were referenced by enterprises during the interviews.

Austria

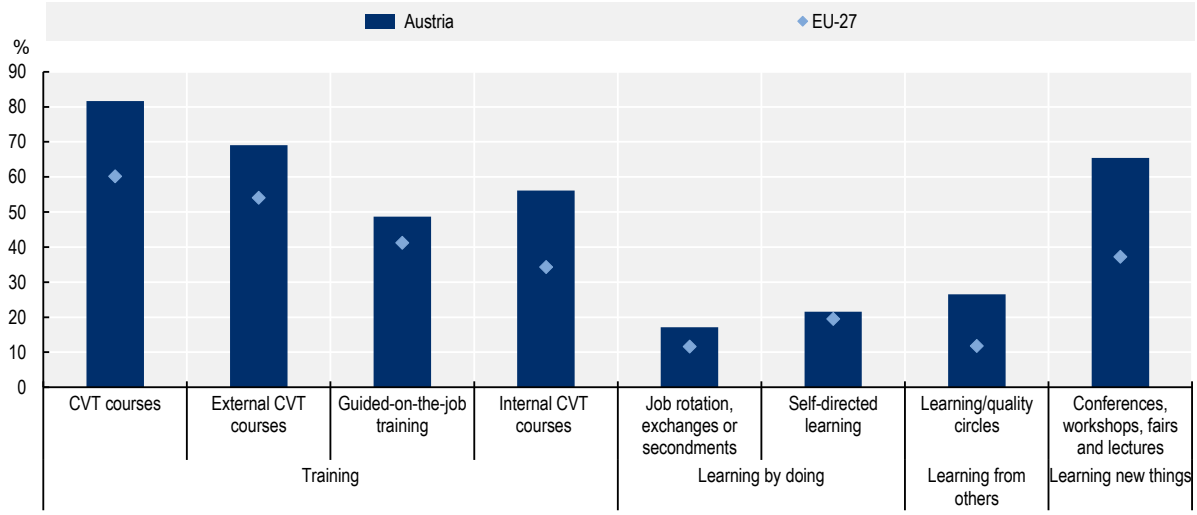
Learning opportunities provided by enterprises

Enterprises in Austria are more likely to provide learning and training opportunities to their employees than enterprises in the EU-27 on average. Looking at formal and non-formal training, CVTS data show that 82% of enterprises in Austria offer CVT courses, compared to 60% on average across the EU-27. Many enterprises make use of external providers to deliver such courses (69%), but a relative large share is delivered internally (56%) compared to the EU-27 average (54% and 34% respectively). This is a testament of the capability of Austrian enterprises to deliver training in-house, which is rooted in a strong dual-vocational training system, where much of initial vocational training takes place in enterprises.

Looking at different types of informal learning, the incidence of enterprises offering opportunities for learning by doing, e.g. job rotation and self-directed learning, is slightly above the EU-27 average (17% vs. 12% and 22% vs. 20% respectively). However, Austrian enterprises are much more likely to offer opportunities to learn from others through learning/quality circles (27%) and to learn new things (65%), compared to the EU-27 average (12% and 37% respectively).

Figure A A.1. Incidence of different forms of learning in Austria

Percentages of enterprises offering different forms of learning



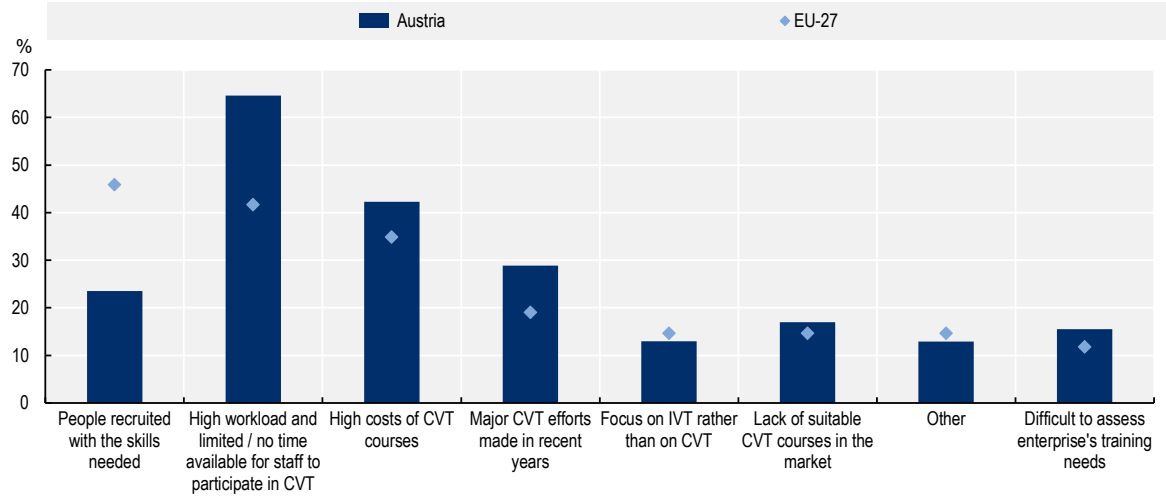
Note: Sample includes enterprises with 9+ employees across all sectors in Austria and EU 27 countries.
Source: Eurostat, CVTS 2015, [*trng_cvt_01].*

Main factors limiting training provision

Some interesting patterns emerge when comparing the factors limiting training provision in Austria to the EU-27 average. It is notable that only 24% of enterprises in Austria state that they are not training (more) because they can recruit the people with the right skills compared to 46% of enterprises in the EU-27 that state the same. This may be an expression of significant skill shortages in Austria. By contrast, time constraints are much more frequently cited as limiting training provision by Austrian enterprises than in the EU-27 on average (65% vs. 42%). Other notable barriers to training provision in Austria include high costs of training (42%) and the fact that major training efforts have already been made in recent years (29%).

Figure A A.2. Factors limiting the provision of training in Austria

Percentage of enterprises reporting that the factor is an obstacle to provision of CVT



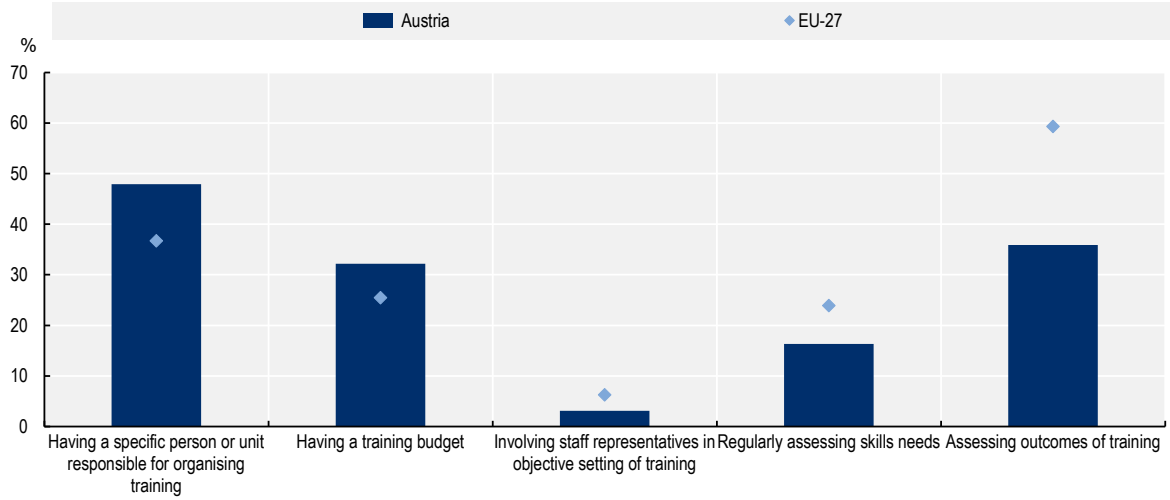
Note: Sample includes enterprises with 9+ employees across all sectors in Austria and EU 27 countries.
Source: Eurostat, CVTS 2015, [*trng_cvt_03*].

Decision making about training

A large share of enterprises in Austria have a dedicated person (48%) and budget (32%) for training compared to enterprises in the EU-27 on average (37% and 26% respectively). Staff representatives play a smaller role in the objective setting in training than elsewhere (3% vs. 6%), which is perhaps surprising given the strong role of social partnership in the Austrian labour market. It is notable that Austrian enterprises are both less likely to assess their skill needs (16%) and to assess the outcomes of training (36%) than enterprises in the EU-27 on average (24% and 59% respectively).

Figure A A.3. Incidence of different decision-making activities about training in Austria

Percentage of enterprises engaging in different decision-making activities about training



Note: Sample includes enterprises with 9+ employees across all sectors in Austria and EU 27 countries.
Source: Eurostat, CVTS 2015, [*trng_cvt_07, trng_cvt_09, trng_cvt_33, trng_cvt_3*].

Use of external support for training

Evidence from the case studies suggests that one in two of the Austrian enterprises makes use of external support from the government and social partners. These were mostly medium-sized enterprises with less than 250 employees. The support accessed included subsidised training provided by social partners, support for training networks, subsidies and training funds. Box A A.1 highlights some of the support options accessed by the enterprises in the sample.

Box A A.1. Practices to support training in enterprises in Austria

Impulse Qualification Associations

Some enterprises in the sample are part of Impulse Qualification Associations (*Impuls-Qualifizierungs-Verbund, IQV*). These are enterprise networks that come together with the aim of jointly planning and implementing qualification measures for their employees. They bring together three or more enterprises in a specific region, half of which must be SMEs. IQVs are funded by the public employment services, which cover the costs of 10 days of consultancy services for the development of HR strategies, training needs assessments and planning, the planning of training and the application for financial support, amongst others. Public employment services also subsidise 50% of any training costs targeting older adults or adults with low skills.

Source: AMS (2021[1]), Impuls-Qualifizierungs-Verbund IQV, https://www.ams.at/unternehmen/personal-und-organisationsentwicklung/impuls-qualifizierungs-verbund-iqv;

Box A A.2. Practices to support training in enterprises in Austria (continued)

Social and Further Training Fund for Temporary Workers

One enterprise in the sample made use of the Social and Further Training Fund for Temporary Workers (*Sozial- und Weiterbildungsfonds der Arbeitskräfteüberlassung).* The Fund was established in 2014 to improve the labour market and social situation of an estimated 130 000 temporary agency workers in Austria. Aim of the fund is to support employees of temporary employment agencies during the periods in which they are not assigned to a posting due to the lack of opportunity for such assignment, when they are at risk of unemployment or unemployed. The fund finances the direct and indirect costs of training measures of employees in temporary agencies. The employment contract with the temporary employment agency is maintained during the training. It is funded through a levy of 0.35% paid by temporary employment agencies.

Financial support by the Carinthian Economic Promotion Fund (KWF)

Many regional authorities in Austria have their own financial support instruments to incentivise training in enterprises. One enterprise in the sample had accessed support by the Carinthian Economic Promotion Fund. The fund supports small and medium enterprises with information, advice and financial aid to support growth and innovation in the region. The enterprise interviewed in the context of the case studies had received a subsidy for a 1.5 year-long training of an employee to become an innovation manager.

Source: WKO (2021[2]), Der Sozial- und Weiterbildungsfonds, https://www.wko.at/service/arbeitsrecht-sozialrecht/Der-Sozial-und-Weiterbildungsfonds.html; Cedefop (2021[3]), Financing adult learning database, https://www.cedefop.europa.eu/en/publications-and-resources/tools/financing-adult-learning-db/search/social-and-further-training-fund-temporary-work-austria; KWF (2021[4]), Aufgabenfelder des KWF – Kärntner Wirtschaftsförderungs Fonds, https://kwf.at/

Estonia

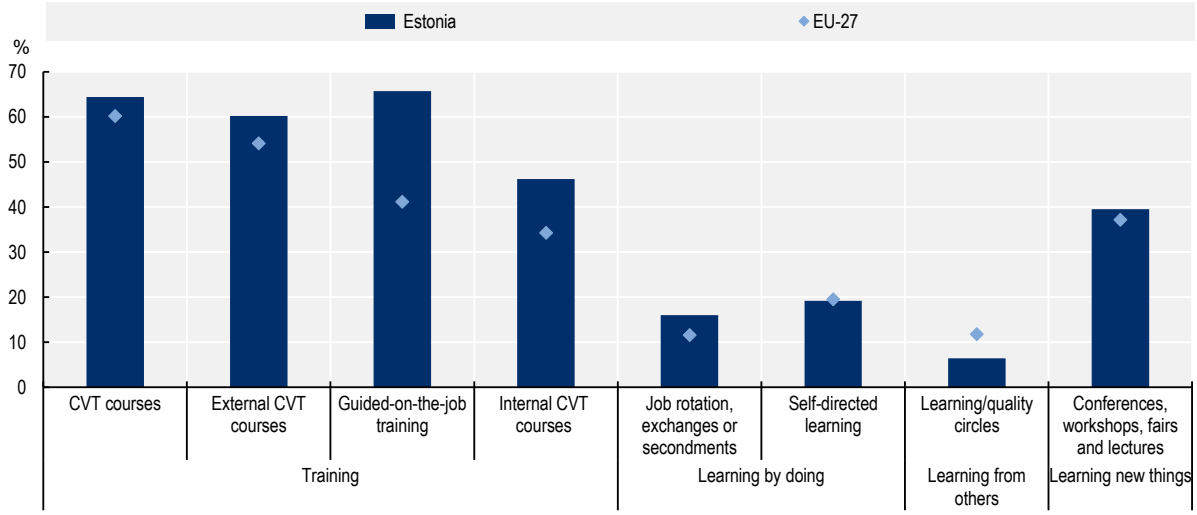
Learning opportunities provided by enterprises

Enterprises in Estonia are somewhat more likely to offer their employees formal and non-formal training opportunities than enterprises in the EU-27 on average. Data from the CVTS shows that 64% of enterprises in Estonia offer CVT courses, compared to 60% on average across the EU-27. Enterprises make use of external providers to deliver such courses (60% vs. 54% in EU-27), but also deliver CVT courses internally (46% vs. 34% in EU-27). It is notable that a large share of enterprises in Estonia offer guided-on-the-job training (66%) compared to the average enterprise in the EU-27 (41%).

The share of enterprises offering different types of informal learning opportunities is around average. There are two exceptions: the higher prevalence of enterprises that offer opportunities for learning by doing through job rotation and alike (16% vs. 12% in EU-27) and the lower prevalence of enterprises that offer opportunities for learning from others through learning/quality circles (6% vs. 12% in EU-27).

Figure A A.4. Incidence of different forms of learning in Estonia

Percentages of enterprises offering different forms of learning



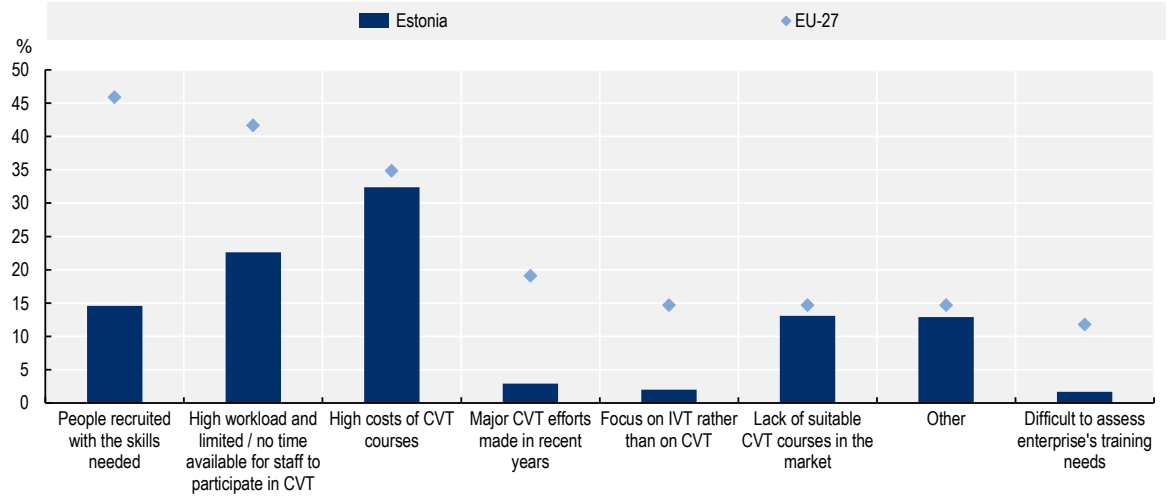
Note: Sample includes enterprises with 9+ employees across all sectors in Estonia and EU 27 countries.
Source: Eurostat, CVTS 2015, [*trng_cvt_01].*

Main factors limiting training provision

Enterprises in Estonia seem to face lower barriers to training provision overall than average enterprises in the EU-27. The biggest obstacles for Estonian enterprises to provide more training is the high cost of CVT courses (32%), which is about as high as the EU-average (35%). Only 15% of Estonian enterprises state not to train because they recruit people with the needed skills, compared to an EU-27 average of 46%. Similarly, only 23% of Estonian enterprises state that lack of time is a limiting factor for training, compared to an EU-27 average of 42%. The only other notable obstacle to training provision named by Estonian enterprises is a lack of suitable CVT courses on the market (13% vs. 15% in EU-27).

Figure A A.5. Factors limiting the provision of training in Estonia

Percentage of enterprises reporting that the factor is an obstacle to provision of CVT



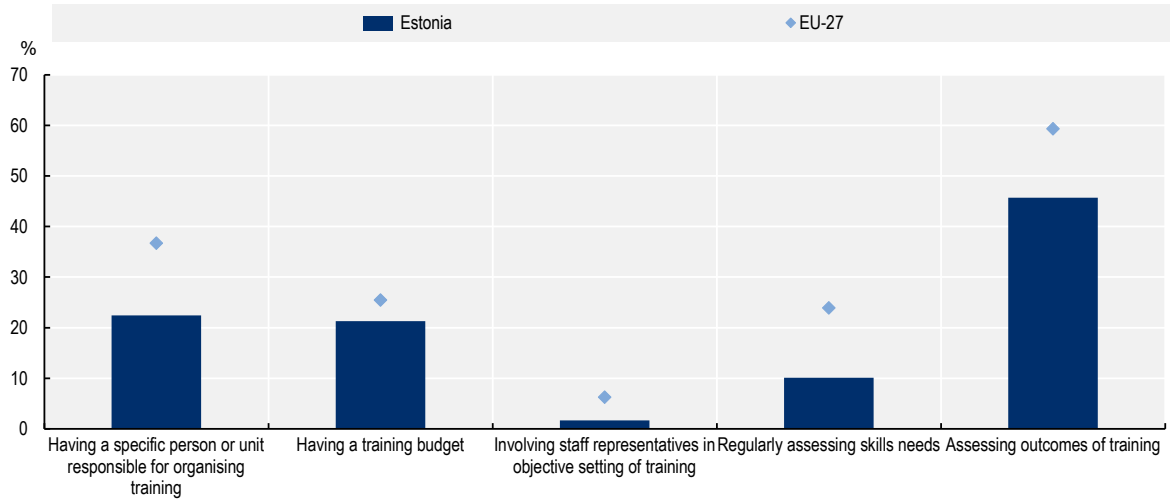
Note: Sample includes enterprises with 9+ employees across all sectors in Estonia and EU 27 countries.
Source: Eurostat, CVTS 2015, [*trng_cvt_03*].

Decision making about training

Enterprises in Estonia are less likely to have a dedicated person or budget for training than the average enterprise in the EU-27. Only 22% of enterprises have a dedicated person or unit responsible for organising training (vs. 37% in EU-27). Only 21% of enterprises have a dedicated training budget (vs. 26% in EU-27). Staff representatives' role in objective setting of training is low – they are involved in only 2% of Estonian enterprises, compared to 6% of enterprises in the EU-27.

Figure A A.6. Incidence of different decision-making activities about training in Estonia

Percentage of enterprises engaging in different decision-making activities about training



Note: Sample includes enterprises with 9+ employees across all sectors in Estonia and EU 27 countries.
Source: Eurostat, CVTS 2015, [*trng_cvt_07, trng_cvt_09, trng_cvt_33, trng_cvt_3*].

Estonian enterprises are lagging behind enterprises in other EU-27 countries when it comes to assessing their skill needs and the outcomes of training: 10% of enterprises in Estonia regularly assess their skill needs, compared to 24% in the EU-27. Along the same lines, only 46% assess the outcomes of training, compared to 59% of enterprises in the EU-27.

Use of external support for training

Evidence from the case studies suggests that three in five Estonian enterprises make use of enterprise support by the government and social partners. Enterprises taking up support are typically medium-sized, but not exclusively so. The support accessed includes information services, free access to courses provided by ministries and government agencies and subsidies for the provision of training in rare cases. Box A A.3 highlights some of the support options accessed by the enterprises in the sample.

Box A A.3. Practices to support training in enterprises in Estonia

DigiABC and other direct training provision

The **Estonian** case studies include an array of examples of direct training provision, typically co-funded by the European Union. Several enterprises interviewed had participated in the project **DigiABC,** which delivered digital literacy training for (low-skilled) employees in the industrial sector between 2017 and 2020. It aimed at engaging 3 000 employees and 1 000 managers in training through their workplaces. The project was funded by the Ministry of Economic Affairs and Communications and delivered by Adult Education Centres in co-operation with the Estonian Employers' Confederation. Beyond this, Estonian enterprises interviewed in the case studies mention a number of other publicly funded training courses. These include training courses on lean manufacturing (5s) or service design funded by Enterprise Estonia, vocational training through the Estonian Unemployment Insurance Fund and language training for Russian speaking employees.

Free access to online learning platform.

In the context of the COVID-19 pandemic, the Estonian Ministry of Education and Research offered 50 000 free online learning spaces on the Cousera education platform. This was part of Cousera's Workforce Recovery Initiative. Learners had access to around 300 courses on general and work-related skills, such as digital literacy, project management and business english. Access was first restricted to groups most affected by the crisis, but was then opened to all Estonians. While the measure targets individuals, rather than enterprises, several enterprises interviewed in the context of the case studies highlighted that they had made use of the free training offer for their employees. The Estonian Unemployment Insurance Fund had alerted enterprises to the offer.

Source: Ministry of Economic Affairs and Communications Estonia (2021[5]), IT skills and knowledge, https://www.mkm.ee/en/objectives-activities/information-society/it-skills-and-knowledge, Haridusportaal (2020[6]), Free online courses from Coursera, https://haridusportaal.edu.ee/artiklid/free-online-courses-coursera

France

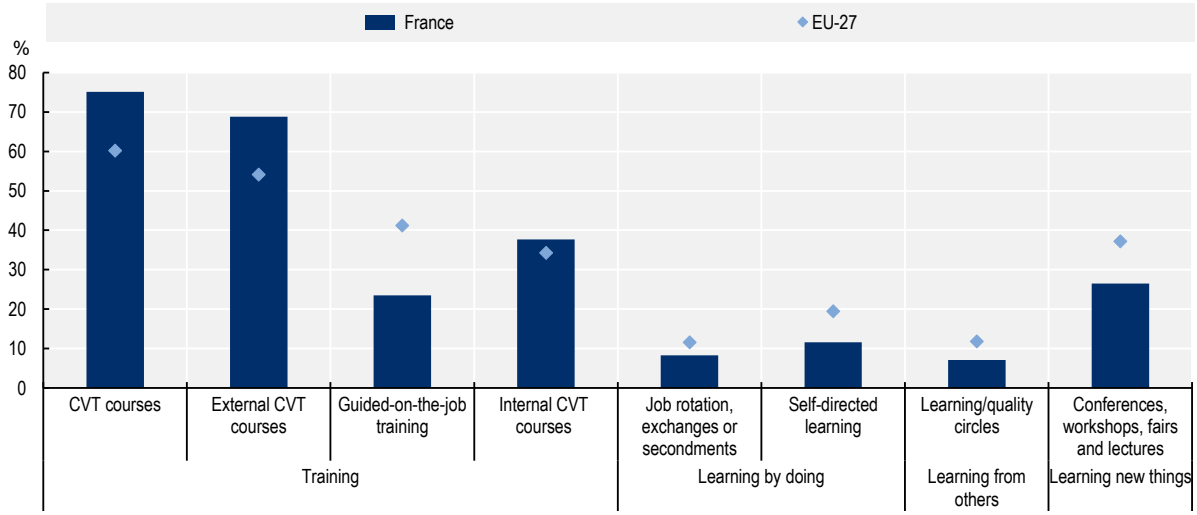
Learning opportunities provided by enterprises

Enterprises in France seem to have a different learning model, compared to enterprises in the rest of the EU-27. Firms in France are more likely to offer CVT courses (79% vs. 70% in EU-27), especially delivered by external providers (69% vs. 54% in EU-27), whereas they are less likely to offer on-the job training (23%

vs. 41% in EU-27), and informal learning opportunities, according to CVTS data. Enterprises in France are less inclined to offer opportunities for learning by doing, for learning from others and for learning new things through conferences, workshops and lectures. This likely reflect the peculiarity of the French training system, which provides strong incentives and support for the adoption of certified training.

Figure A A.7. Incidence of different forms of learning in France

Percentages of enterprises offering different forms of learning



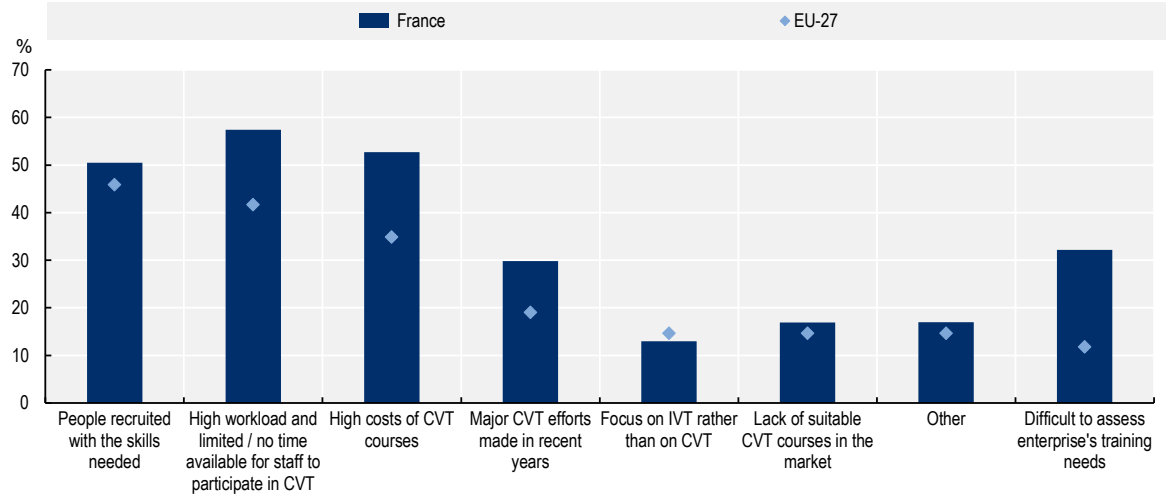
Note: Sample includes enterprises with 9+ employees across all sectors in France and EU 27 countries.
Source: Eurostat, CVTS 2015, [*trng_cvt_01].*

Main factors limiting training provision

Enterprises in France are more likely to face barriers limiting their provision of training, compared to enterprises in the EU-27. In France, the most common factor limiting the provision of training reported by companies is a lack of time (57% vs. 42% in EU-27), followed by the cost of training (53% vs. 34% in EU-27). Another barrier that is more important in France than in the EU-27 on average relates to enterprises' difficulty to assess their training needs (32% vs. 12% in EU-27).

Figure A A.8. Factors limiting the provision of training in France

Percentage of enterprises reporting that the factor is an obstacle to provision of CVT



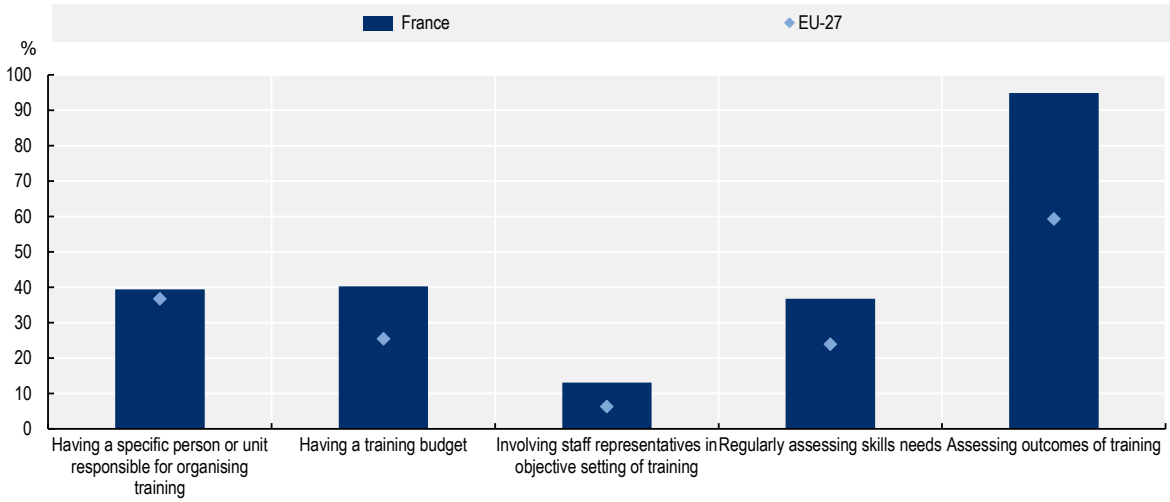
Note: Sample includes enterprises with 9+ employees across all sectors in France and EU 27 countries.
Source: Eurostat, CVTS 2015, [*trng_cvt_03*].

Decision making about training

According to legislation introduced in 2014 (*LOI n° 2014-288*), enterprises in France are legally obliged to evaluate the impact of training actions. This legal obligation explains why the share of firms declaring that they assess the outcomes of training stands at 95%, much higher than the average for EU-27 (59%) and higher than any other country included in the CVTS. Firms in France are also more likely than firms in the EU-27 to have a dedicated training budget, and to regularly assess the skills of their workforce.

Figure A A.9. Incidence of different decision-making activities about training in France

Percentage of enterprises engaging in different decision-making activities about training



Note: Sample includes enterprises with 9+ employees across all sectors in France and EU 27 countries.
Source: Eurostat, CVTS 2015, [*trng_cvt_07, trng_cvt_09, trng_cvt_33, trng_cvt_3*].

Use of external support for training

Evidence from the case studies suggests that more than three in five French enterprises make use of enterprise support by the government and social partners. Enterprises which take up support are typically medium-sized, but not exclusively so. The support accessed includes primarily information and guidance services, as well as different kinds of subsidies. Box A A.4 highlights some of the support options accessed by the enterprises in the sample.

Box A A.4. Practices to support training in enterprises in France

Skills Operators

Evidence from the case studies suggest that many enterprises in France make use of the guidance services provided by Skills Operators (*opérateurs de compétences, OPCO*). These bodies are responsible for supporting SMEs in defining their training needs, identifying training opportunities and advising on the available financial support options. There are 11 sectoral OPCOs with 329 branches across France. OPCOs are run by social partners, which staff the board of directors of each OPCO with an equal number of representatives. Government representatives are involved in the board only in an advisory a capacity. One in two French enterprises in the case study sample are in contact with OPCO with varying intensity. They are typically medium-sized, although some larger enterprises also use the services.

Individual learning accounts

In 2015, the introduction of the Individual Learning Accounts (*Compte Personnel de Formation, CPF*) was a milestone for the French continuing training system. The account aims to empower individuals to take responsibility for their own training, to improve skills, to reduce inequalities in accessing training and to strengthen market mechanisms in the continuing training system. In its current version, it allows employees to collect training entitlements of EUR 500 per year (EUR 800 per year for low-skilled adults) up to a ceiling of EUR 5 000 (EUR 8 000 for low-skilled adults). In fact, the CPF is the only international example of individuals building portable training entitlements over time. Individuals can use their entitlements to purchase certified CET opportunities via a website or phone application. The CPF is funded through employers' levies, which are paid into training funds. Self-employed workers contribute a flat rate. While in theory the account is meant to encourage personal autonomy in the take-up and choice of training, evidence from the case studies suggests that some employers encourage their employees to use the CPF to finance job-related training.

Source: Ministère du Travail (2021[7]), Les opérateurs de compétences (OPCO), https://travail-emploi.gouv.fr/ministere/acteurs/partenaires/opco; Perez and Vour'ch (2020[8]), Individualising training access schemes : France – the Compte Personnel de Formation (Personal Training Account – CPF), OECD Social, Employment and Migration Working Papers, No. 245, https://dx.doi.org/10.1787/301041f1-en

Ireland

Learning opportunities provided by enterprises

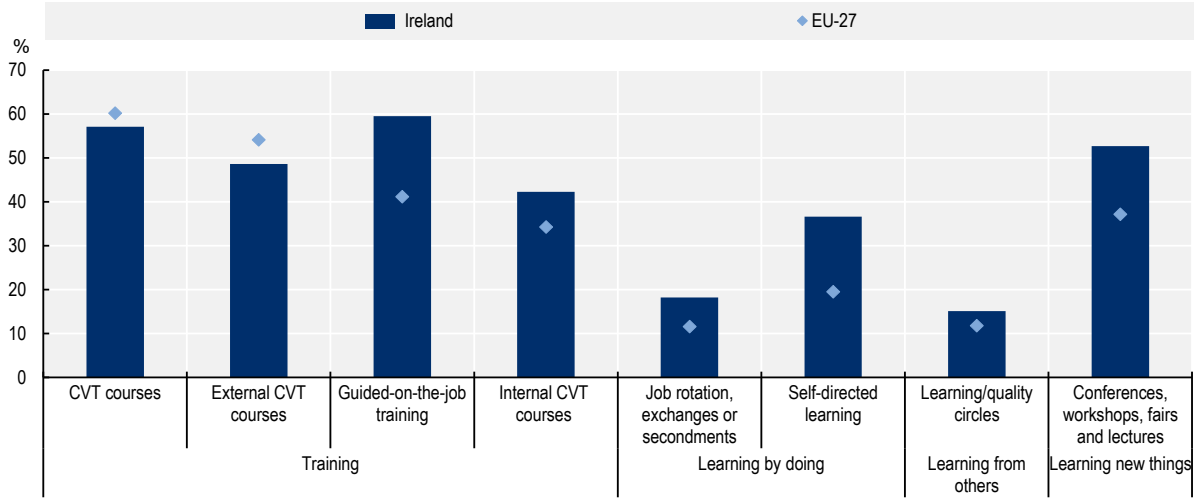
Enterprises in Ireland have a likelihood to offer formal and non-formal training opportunities similar to the EU-27 average. However, there are some differences in the types of training offered. Firms in Ireland are more inclined to rely on internal training opportunities, such as internal CVT courses (42% vs. 34% in EU-27) and on-the-job training (59% vs. 41% in EU-27), as opposed to external CVT courses (49% vs.

54% in EU-27). This might reflect greater difficulties to engage with external providers or a preference to foster an internal culture of learning.

Consistent with this second interpretation, the share of enterprises offering different types of informal learning opportunities in Ireland is above average. Enterprises in Ireland are more likely to offer opportunities for learning by doing through job rotation, exchanges or secondments (18% vs. 12% in EU-27) and self-directed learning (37% vs. 19% in EU-27). Irish enterprises also have a greater propensity to offer opportunities to learn new things (53% vs. 37% in EU-27). Lastly, the share of firms offering learning and quality circles is slightly above the EU average (15% vs. 12% in EU-27).

Figure A A.10. Incidence of different forms of learning in Ireland

Percentages of enterprises offering different forms of learning



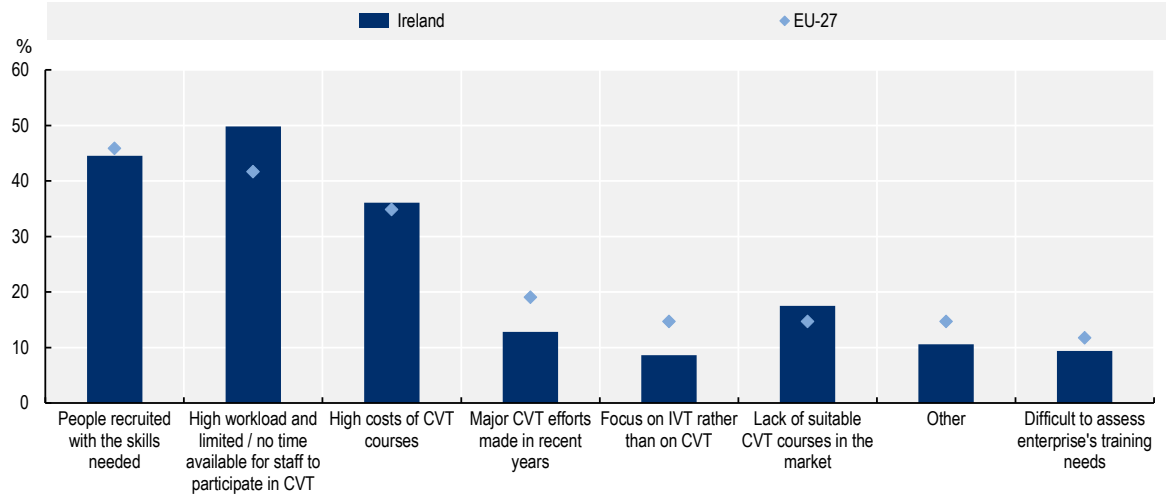
Note: Sample includes enterprises with 9+ employees across all sectors in Ireland and EU 27 countries.
Source: Eurostat, CVTS 2015, [*trng_cvt_01].*

Main factors limiting training provision

Overall, enterprises in Ireland seem to face comparable barriers to training provision to enterprises in the EU-27. However, firms in Ireland are more likely to report that lack of time is a limiting factor for training (50% vs. 42% in EU-27).

Figure A A.11. Factors limiting the provision of training in Ireland

Percentage of enterprises reporting that the factor is an obstacle to provision of CVT



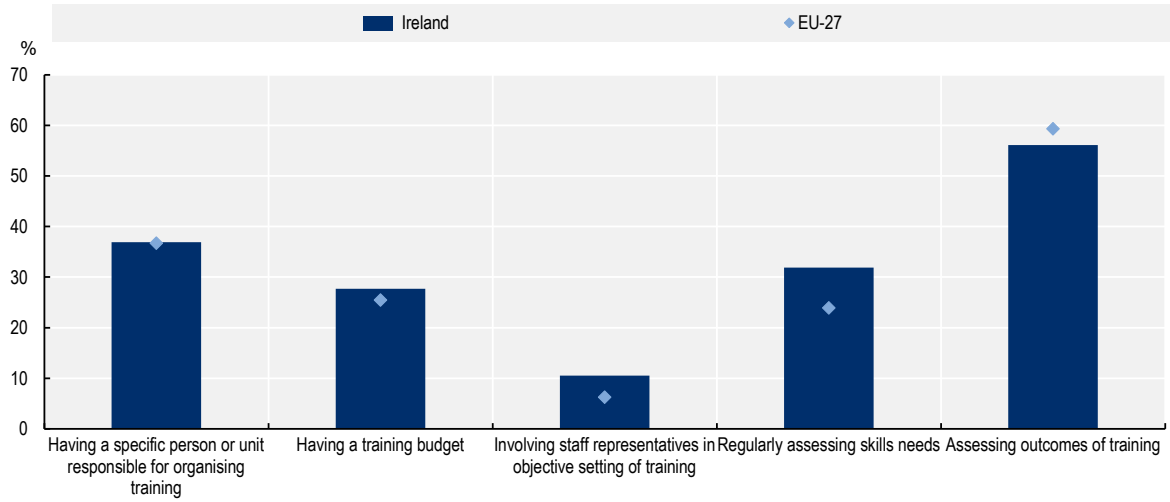
Note: Sample includes enterprises with 9+ employees across all sectors in Ireland and EU 27 countries.
Source: Eurostat, CVTS 2015, [*trng_cvt_03*].

Decision making about training

Overall, firms in Ireland seem to have similar decision-making processes to firms in the EU-27. The share of Irish firms having a specific person responsible for organising training or having a training budget is line with the EU-27 average. However, enterprises in Ireland are more likely to assess their skill needs (31% vs. 24% in EU-27), whereas they are less likely to assess the outcomes of training (56% vs. 59% in EU-27). This might reflect the fact that Irish enterprises are less likely to rely on external providers.

Figure A A.12. Incidence of different decision-making activities about training in Ireland

Percentage of enterprises engaging in different decision-making activities about training



Note: Sample includes enterprises with 9+ employees across all sectors in Ireland and EU 27 countries.
Source: Eurostat, CVTS 2015, [*trng_cvt_07, trng_cvt_09, trng_cvt_33, trng_cvt_3*].

Use of external support for training

Evidence from the case studies suggests that the vast majority of Irish enterprises make use of enterprise support by the government and social partners. This is true for medium and large enterprises alike. The support accessed by enterprises in the sample primarily relates to different kinds of subsidies, but also information and guidance services. Box A A.5 highlights some of the support options accessed by the enterprises in the sample.

Box A A.5. Practices to support training in enterprises in Ireland

Skillnet Ireland

The government builds the joint capacity of enterprises through **Skillnet Ireland**. Skillnet Ireland works with more 70 single- or multi-sector networks that bring together firms, primarily small and medium enterprises, to collaborate to address their skill needs. Services of the individual networks include, amongst others, assistance in the identification of skill and training needs, development of training plans, the development of new training programmes and advice on the evaluation of the effectiveness of training. Skillnet Ireland also subsidises training, through funding that is raised through a training levy (see subsection on financing above). Evaluations suggest that enterprises are satisfied with the offer, with more than three in four enterprises stating that participating in the network had a positive effect on the long-term performance of their business.

Skills to Advance and other subsidies

In **Ireland** several enterprises reported receiving subsidies for training from multiple sources, including from Enterprise Ireland (government agency to support Irish businesses in international trade), Skillnet Ireland (national agency for workforce learning), Solas (government agency for further education and training) or industry bodies such as Engineers Ireland. Solas, for example, provides subsidies for enterprises to upskill vulnerable groups through the programme **Skills to Advance**. These groups include older works, those working in lower skilled jobs or in jobs at risk of significant change due to technology. The subsidy is dependent on company size: large enterprises can receive a 50% subsidy, which increases to 70% for small enterprises. Eligible training costs include costs related to the identification of training needs, as well the development, design and delivery of training.

Source: Skillnet Ireland (2021[9]), Skillnet Ireland, https://www.skillnetireland.ie/; Indecon (2019[10]), Evalution of Skillnet Ireland in 2018, https://www.skillnetireland.ie/wp-content/uploads/2019/11/Indecon-Evaluation-of-Skillnet-Ireland-2018-Final-Report-30-October-2019.pdf; Solas (2021[11]), Skills to Advance, https://www.solas.ie/programmes/skills-to-advance/; Solas (2019[12]), General Block Exemption Regulation, Skills to Advance Schmee 2019-2021, https://www.solas.ie/f/70398/x/69a799b4ff/skillstoadvance_scheme_2019-2021.pdf

Italy

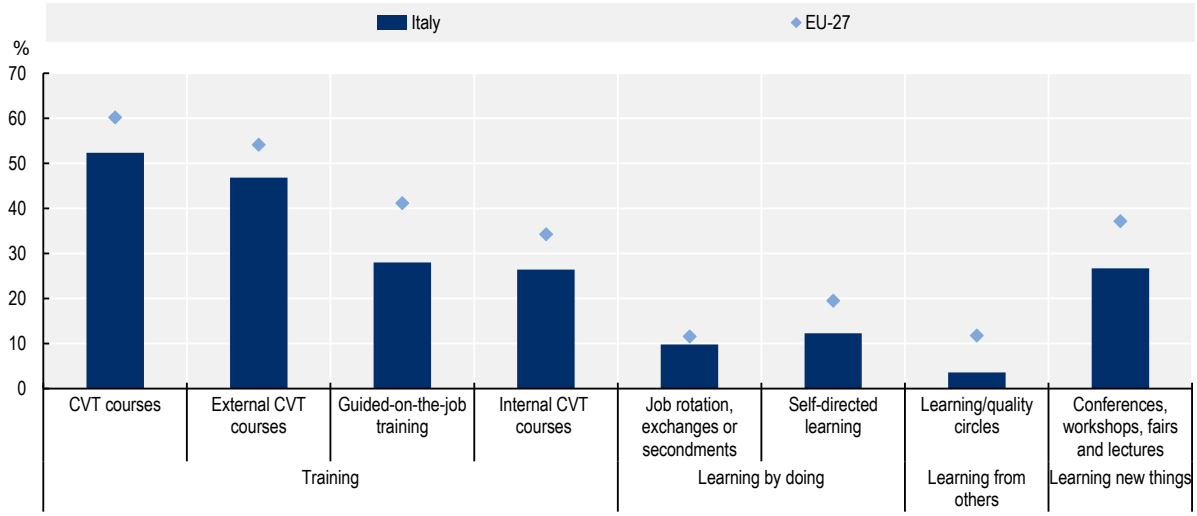
Learning opportunities provided by enterprises

Enterprises in Italy are less likely to provide any of the different learning opportunities to their employees, compared to enterprises in the EU-27 on average. Looking at formal and non-formal training, 52% of enterprises in Italy offer CVT courses, compared to 60% on average across the EU-27. Firms in Italy are less likely to offer both external (47% vs. 54% in EU-27) and internal (26% vs. 34% in EU-27) CVT courses. The situation for informal learning is similar. Enterprises in Italy are less likely to offer opportunities to learn by doing, learn from others through quality circles and learning new things. To some extent, these results might reflect the relatively high incidence of SMEs in the Italian economy. SMEs are less likely to provide

learning opportunities, and when they do so, might rely on less institutionalised forms of learning, that may not be covered by the CVTS (see Chapter 2 and Chapter 3).

Figure A A.13. Incidence of different forms of learning in Italy

Percentages of enterprises offering different forms of learning



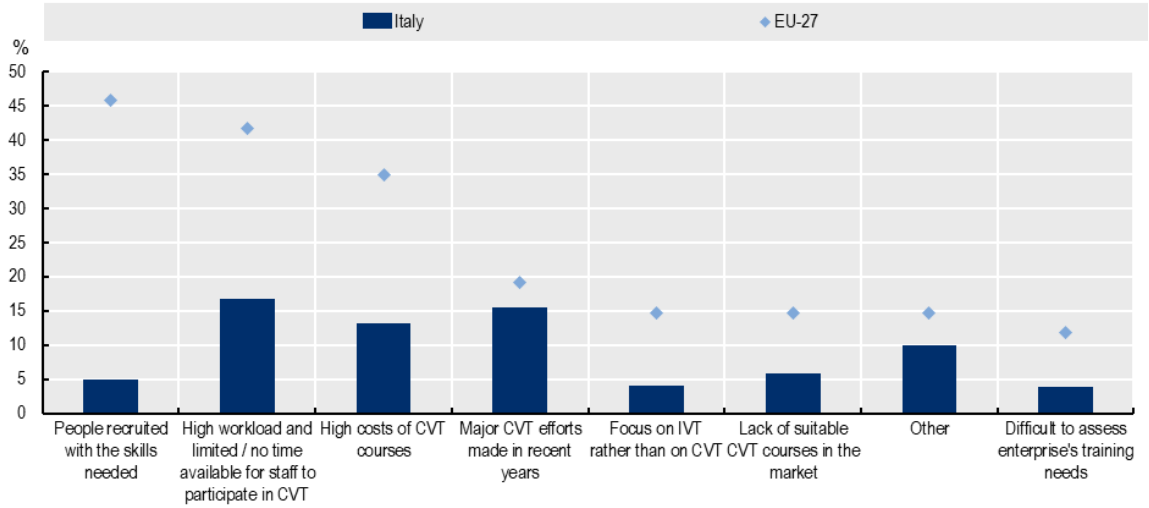
Note: Sample includes enterprises with 9+ employees across all sectors in Italy and EU 27 countries.
Source: Eurostat, CVTS 2015, [*trng_cvt_01].*

Main factors limiting training provision

In principle, the comparatively low reliance on training by Italian firms could also be due to obstacles in provision. However, enterprises in Italy are less likely to report that they experience barriers, compared to firms in the EU-27. The relative underprovision of training in Italy could be explained, among other factors, by negative management attitudes (see Chapter 2 and 3), the adoption of product market strategies that do not make learning a priority (see Chapter 2 and 3) and the lack of internal capabilities to make decisions about training (see Chapter 4).

Figure A A.14. Factors limiting the provision of training in Italy

Percentage of enterprises reporting that the factor is an obstacle to provision of CVT



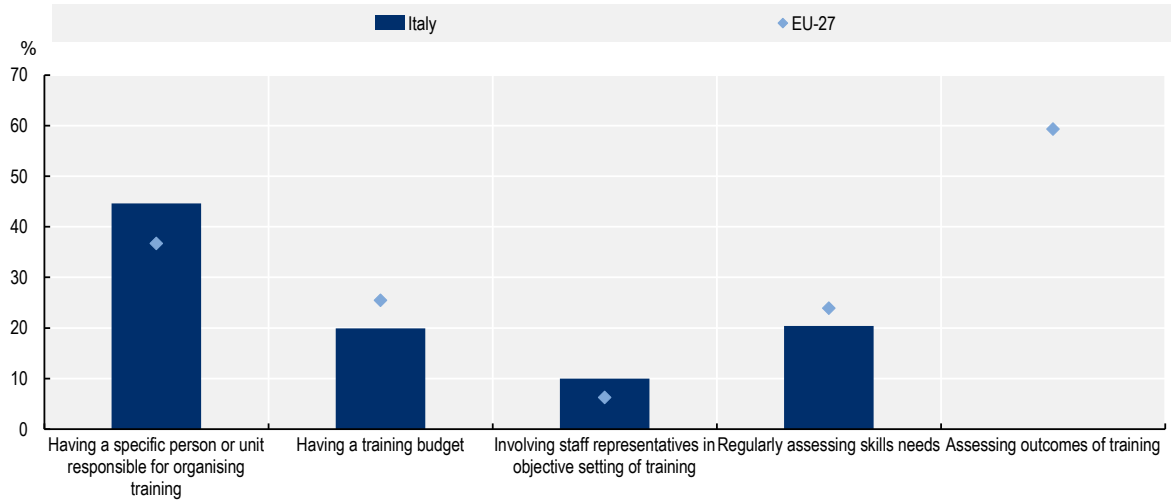
Note: Sample includes enterprises with 9+ employees across all sectors in Italy and EU 27 countries.
Source: Eurostat, CVTS 2015, [*trng_cvt_03*].

Decision making about training

The CVTS data on decision-making about training suggest that a lack of internal capabilities could play a role in explaining the comparatively low provision of training in Italy. Although firms in Italy are more likely than firms in the EU-27 to have a specific person or unit responsible for organising training, they are less likely to have a training budget and to regularly assess their training needs. The underperformance in these two areas could contribute to the underprovision of training opportunities by Italian enterprises.

Figure A A.15. Incidence of different decision-making activities about training in Italy

Percentage of enterprises engaging in different decision-making activities about training



Note: Sample includes enterprises with 9+ employees across all sectors; data missing on assessing the outcomes of training for Italy.
Source: Eurostat, CVTS 2015, [*trng_cvt_07, trng_cvt_09, trng_cvt_33, trng_cvt_3*].

Use of external support for training

Evidence from the case studies suggests that three in four Italian enterprises make use of enterprise support by the government and social partners. In the sample of enterprises included in the study, large enterprises are more likely to take up support in Italy. The support accessed by enterprises in the sample primarily relates to the use of Training Funds, but also information provided by employer and professional associations. Box A A.6 highlights some of the support options accessed by the enterprises in the sample.

Box A A.6. Practices to support training in enterprises in Italy

Training Funds

In **Italy** enterprises pay 0.3% of their payroll into one of 20 **Training Funds** (*Fondi Paritetici Interprofessionali*), each focusing on different sectors, size and types of enterprises. Set-up in the early 2000s, they now cover over 900 000 firms and 10 million workers in Italy, managing funds of more than EUR 600 million per year. Some of the funding is distributed through public calls for training plans (*Avvisi*), which aim to steer training provision towards specific skills or types of workers. It is important to note that the Italian Training Funds do not manage to redistribute training funds from larger to small firms, with larger firms much more likely to receive financial support through the funds. Within the sample of enterprises interviewed in the context of this study, more than three in five made use of the financial incentives provided through Training Funds. However, several enterprises interviewed voiced their dissatisfaction with the instruments, highlighting that the process was to complex and bureaucratic. This is a known problem of this instrument in Italy.

Source: OECD (2019[13]), Getting Skills Right: Adult Learning in Italy. What role for training funds?, OECD Publishing, Paris, https://doi.org/10.1787/9789264311978-en; OECD (2021[14]), Raising Skills in SMEs in the digital transformation. A review of policy instruments in Italy, OECD Publishing, Paris

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Annex B. Econometric analysis

Data

The European Company Survey (ECS) has substantial information on training and learning decisions made by firms and their background characteristics, such as sector, size, age, hierarchical structure, product market strategy, technology adoption and work practices. This rich dataset allows a detailed analysis of the relationship between firms' characteristics and their training offer. To this end, the OECD has conducted regression analysis for different training and learning outcomes. Boxes throughout the chapters present summaries of the main findings. This annex provides a technical description of the methodology and the results.

Overview of methodology

The sample used for the econometric analyses includes enterprises from all countries covered in the ECS microdata (the EU-27 plus the UK), which have more than 50 employees and belong to the manufacturing and services sectors. The ECS has several categorical variables, which require managers to select one option among several categories, for instance:

> *In 2018, how many employees in this establishment have received on-the-job training or other forms of direct instruction in the workplace from more experienced colleagues?*
>
> *☐ None at all*
>
> *☐ Less than 20%*
>
> *☐ 20% to 39%*
>
> *☐ 40% to 59%*
>
> *☐ 60% to 79%*
>
> *☐ 80% to 99%*
>
> *☐ All*

A binary outcome variable was derived by merging multiple categories, using the sample average as the cut-off point. For example, for the question above, a dummy variable was created by assigning a value 1 if the company reported that more than 40% of employees had received on-the-job or direct instruction in the workplace. For each binary outcome variable, the OECD estimated a probit model. The list of independent variables includes dummy variables for country, number of employees, age, hierarchy levels, type of market strategy, adoption of several High Performance Workplace Practices (HPWPs), change in employment, profitability, share of permanent contracts and technological change. Standard errors are clustered by country and the industry-size strata for the sample. The OECD also explored the possibility of implementing a multinomial logit approach, but this was ultimately discarded, due to sample size considerations and difficulties in interpreting coefficients.

After estimating the probit model, average marginal effects were computed. Given that all variables are categorical, each marginal effect shows the change in probability of experiencing a particular outcome (e.g. having a comparatively high share of employees participating in training) for a category of enterprises (e.g. financial services sector enterprises) compared to the omitted category (e.g. manufacturing firms). The results should not be interpreted causally, but show how a particular firm characteristic is correlated with a training or learning outcome, while controlling for other factors.

The sections below present the results discussed across different chapters.

Results related to Chapter 2

Table A B.1. Enterprise characteristics and the mode of delivery (Box 2.3)

Dimension	Independent variable	Dependent variable: High training propensity in courses	Dependent variable: High training propensity on-the-job
Sector (omitted: Manufacturing)	Wholesale & Retail Trade	0.120*** (0.0329)	0.0517** (0.0247)
	Transportation & Storage	0.107** (0.0436)	0.0332 (0.0370)
	Accommodation & Food	0.0140 (0.0443)	0.183*** (0.0586)
	Information & Communication	-0.0241 (0.0528)	0.100* (0.0514)
	Financial & Insurance	0.328*** (0.0452)	0.139 (0.0847)
	Real Estate	0.198 (0.147)	0.00928 (0.115)
	Professional Services	0.139*** (0.0398)	0.109** (0.0518)
	Administrative & Support	-0.0226 (0.0743)	0.0620 (0.0495)
	Arts & Recreation	-0.113* (0.0624)	0.0535 (0.0749)
	Other Services	0.103*** (0.0391)	0.140*** (0.0418)
Size (omitted: 250+ employees)	50 to 249 employees	-0.0462* (0.0264)	-0.0524*** (0.0183)
Age (omitted: 30+ years)	10 years or less	-0.0165 (0.0455)	0.0984*** (0.0240)
	11 to 20 years	0.0297 (0.0208)	0.101*** (0.0278)
	21 to 30 years	0.0291 (0.0223)	0.0263 (0.0167)
Levels of hierarchy (omitted: 3+ levels)	1 or 2 levels	-0.140** (0.0650)	-0.0114 (0.0407)
	3 levels	-0.0289 (0.0250)	0.0234 (0.0149)
Product market strategy (omitted: lower prices)	Customisation	0.0530** (0.0244)	0.0351 (0.0329)

Dimension	Independent variable	Dependent variable: High training propensity in courses	Dependent variable: High training propensity on-the-job
	Introducing new products/services	0.0728 (0.0473)	0.0155 (0.0543)
	Better quality	0.0530** (0.0244)	0.0305 (0.0426)
Technology adoption (omitted: technology not adopted)	Uses robots	0.00807 (0.0226)	0.0820*** (0.0198)
	Purchased customised software	0.0414** (0.0173)	0.0370 (0.0322)
	Use data analytics	0.0648*** (0.0244)	0.105*** (0.0262)
HPWPs (omitted: practice not adopted)	Workforce autonomy	0.0536*** (0.0197)	0.0534** (0.0221)
	Performance pay	0.0735** (0.0301)	0.0432 (0.0335)
	Teamwork	0.0322** (0.0161)	0.0558*** (0.0204)
Observations		5,701	5,683

Note: The table reports average marginal effects from a probit model. *** reports marginal effects for which p<0.01, ** when p<0.05, and * when p<0.1. The model is estimated separately for training sessions and on-the-job training. The dependent variable is equal to 1 if at least 40% of employees receive training sessions or on-the-job training. Clustered standard errors between parentheses.
Source: OECD calculations, using microdata from ECS 2019.

Table A B.2. Enterprise characteristics and intensity of problem solving at work (Box 2.5)

Dimension	Independentent variable	Dependent variable: High problem solving intensity at work
Sector (omitted: Manufacturing)	Wholesale & Retail Trade	-0.0565** (0.0219)
	Transportation & Storage	-0.0335 (0.0361)
	Accommodation & Food	-0.0506 (0.0494)
	Information & Communication	0.189*** (0.0291)
	Financial & Insurance	0.0600 (0.0515)
	Real Estate	-0.0416 (0.103)
	Professional Services	0.278*** (0.0259)
	Administrative & Support	-0.0303 (0.0834)
	Arts & Recreation	-0.0753 (0.0971)
	Other Services	0.0532 (0.0371)
Size (omitted: 250+ employees)	50 to 249 employees	0.0193 (0.0155)

Dimension	Independentent variable	Dependent variable: High problem solving intensity at work
Age (omitted: 30+ years)	10 years or less	0.00551 (0.0287)
	11 to 20 years	0.0610* (0.0348)
	21 to 30 years	0.0120 (0.0179)
Levels of hierarchy (omitted: 3+ levels)	1 or 2 levels	0.0433 (0.0432)
	3 levels	-0.00862 (0.0160)
Product market strategy (omitted: lower prices)	Customisation	0.0371** (0.0174)
	Introducing new products/services	0.0841** (0.0331)
	Better quality	0.00287 (0.0272)
Technology adoption (omitted: technology not adopted)	Uses robots	0.00903 (0.0236)
	Purchased customised software	0.0571*** (0.0197)
	Use data analytics	0.0529** (0.0210)
HPWPs (omitted: practice not adopted)	Workforce autonomy	0.109*** (0.0234)
	Performance pay	0.145*** (0.0350)
	Teamwork	0.0612** (0.0244)
Observations		5,701

Note: The table reports average marginal effects from a probit model. *** reports marginal effects for which p<0.01, ** when p<0.05, and * when p<0.1. The dependent variable is equal to 1 if at least 20% of employees are in jobs that require finding solutions to unfamiliar problems. Clustered standard errors between parentheses.
Source: OECD calculations, using microdata from ECS 2019.

Results related to Chapter 3

Table A B.3. Enterprise characteristics and main reasons for providing training (Box 3.1)

Dimension	Independent variable	Dependent variable: Flexibility	Dependent variable: Motivation	Dependent variable: Innovation	Dependent variable: Skills
Sector (omitted: Manufacturing)	Wholesale & Retail Trade	-0.0322 (0.0223)	0.0541*** (0.0185)	0.00440 (0.0219)	-0.00833 (0.00628)
	Transportation & Storage	-0.0298 (0.0364)	-0.0190 (0.0191)	-0.0108 (0.0182)	0.00228 (0.00655)
	Accommodation & Food	0.0623 (0.0467)	0.0799*** (0.0228)	0.0701* (0.0355)	-0.00917 (0.0158)

Dimension	Independent variable	Dependent variable: Flexibility	Dependent variable: Motivation	Dependent variable: Innovation	Dependent variable: Skills
	Information & Communication	-0.163*** (0.0444)	-0.142* (0.0727)	0.00992 (0.0427)	-0.0583*** (0.0217)
	Financial & Insurance	-0.134* (0.0708)	-0.000641 (0.0353)	0.0298 (0.0525)	0.0117 (0.0104)
	Real Estate	-0.0112 (0.0774)	0.0641 (0.0498)	-0.104 (0.139)	0.000990 (0.0215)
	Professional Services	-0.0292 (0.0410)	0.0283 (0.0236)	-0.0250 (0.0288)	0.00404 (0.0117)
	Administrative & Support	0.0236 (0.0414)	-0.0403 (0.0250)	0.0101 (0.0400)	0.00317 (0.00695)
	Arts & Recreation	0.0327 (0.0589)	-0.0129 (0.0339)	-0.0303 (0.0656)	-0.00444 (0.0153)
	Other Services	-0.0723** (0.0314)	-0.00797 (0.0300)	-0.00563 (0.0238)	-0.00742 (0.0108)
Size (omitted: 250+ employees)	50 to 249 employees	-0.0683*** (0.0236)	-0.00614 (0.0128)	0.0122 (0.0139)	-0.00694 (0.00590)
Age (omitted: 30+ years)	10 years or less	0.0123 (0.0500)	-0.0214 (0.0533)	0.0278 (0.0217)	-0.0166 (0.0219)
	11 to 20 years	-0.00109 (0.0218)	0.0322*** (0.0101)	0.00845 (0.0196)	-0.00175 (0.00930)
	21 to 30 years	0.0165 (0.0293)	0.0410** (0.0187)	0.0182 (0.0150)	0.00557 (0.00847)
Levels of hierarchy (omitted: 3+ levels)	1 or 2 levels	0.0173 (0.0729)	-0.0116 (0.0438)	-0.00788 (0.0300)	-0.0262* (0.0142)
	3 levels	0.0215 (0.0216)	-0.00805 (0.0112)	0.0302* (0.0169)	-0.00629 (0.00659)
Product market strategy (omitted: lower prices)	Customisation	0.0178 (0.0357)	0.0677** (0.0314)	0.0942* (0.0492)	0.00644 (0.0121)
	Introducing new products/services	0.0310 (0.0409)	0.0483 (0.0328)	0.106*** (0.0404)	0.00398 (0.0148)
	Better quality	-0.0108 (0.0187)	0.0575** (0.0221)	0.0638* (0.0356)	0.00596 (0.0118)
Technology adoption (omitted: technology not adopted)	Uses robots	0.0146 (0.0227)	-0.0138 (0.0217)	0.0214 (0.0176)	-0.00433 (0.00938)
	Purchased customised software	0.0313* (0.0172)	0.00548 (0.0142)	0.0105 (0.0117)	0.00234 (0.0101)
	Use data analytics	0.0576* (0.0332)	0.00622 (0.0333)	0.0258 (0.0202)	0.0188** (0.00739)
HPWPs (ommmitted: practice not adopted)	Workforce autonomy	0.0157 (0.0157)	0.0544*** (0.0197)	0.0647*** (0.0169)	0.0221** (0.00985)
	Teamwork	-0.0509** (0.0244)	0.0296 (0.0309)	0.0523* (0.0282)	0.0125 (0.0149)
	Performance pay	0.0795*** (0.0240)	0.0362*** (0.0120)	0.0410** (0.0161)	0.0202*** (0.00641)
Observations		5,679	5,681	5,676	5,319

Note: The table reports average marginal effects from a probit model. *** reports marginal effects for which p<0.01, ** when p<0.05, and * when p<0.1. The variable Flexibility is equal to 1 if the enterprise declares that 'allowing employees to acquire skills they need to do other jobs' is an important factor motivating training provision. The variable Motivation is equal to 1 if the enterprise declares that 'improving employee morale' is an important factor motivating training provision. The variable Innovation is equal to 1 if the enterprise declares that 'increasing the capacity of employees to articulate ideas about improvement' is an important factor motivating training provision. The variable Skills is equal to 1 if the enterprise declares that 'ensuring that employees have the skills they need to do their current job' is an important factor motivating training provision. The model is estimated separately for the four different dependent variables. Clustered standard errors between parentheses.
Source: OECD calculations, using microdata from ECS 2019.

Table A B.4. Enterprise characteristics and time constraints (Box 3.2)

Dimension	Independentent variable	Dependent variable: Workload is an obstacle to training
Sector (omitted: Manufacturing)	Wholesale & Retail Trade	0.00831 (0.0254)
	Transportation & Storage	-0.00143 (0.0209)
	Accommodation & Food	-0.0131 (0.0268)
	Information & Communication	-0.0133 (0.0225)
	Financial & Insurance	0.138 (0.125)
	Real Estate	0.0498* (0.0280)
	Professional Services	-0.112* (0.0655)
	Administrative & Support	-0.119** (0.0495)
	Arts & Recreation	-0.0914** (0.0359)
	Other Services	-0.00805 (0.0231)
Size (omitted: 250+ employees)	50 to 249 employees	-0.0220 (0.0317)
Age (omitted: 30+ years)	10 years or less	-0.0448** (0.0217)
	11 to 20 years	-0.0880*** (0.0191)
	21 to 30 years	0.0195 (0.0245)
Levels of hierarchy (omitted: 3+ levels)	1 or 2 levels	0.00434 (0.0209)
	3 levels	0.00831 (0.0254)
Product market strategy (omitted: lower prices)	Customisation	-0.00143 (0.0209)
	Introducing new products/services	-0.0131 (0.0268)
	Better quality	-0.0133 (0.0225)
Technology adoption (omitted: technology not adopted)	Uses robots	0.138 (0.125)
	Purchased customised software	0.0498* (0.0280)

Dimension	Independentent variable	Dependent variable: Workload is an obstacle to training
	Use data analytics	-0.112* (0.0655)
HPWPs (ommmitted: practice not adopted)	Workforce autonomy	-0.119** (0.0495)
	Performance pay	-0.0914** (0.0359)
	Teamwork	-0.00805 (0.0231)
Observations		5,659

Note: The table reports average marginal effects from a probit model. *** reports marginal effects for which p<0.01, ** when p<0.05, and * when p<0.1. The dependent variable is equal to 1 if the enterprise declares that participation in training and professional development activities is only possible if workload and work schedules allow for it, to 0 otherwise. Clustered standard errors between parentheses.
Source: OECD calculations, using microdata from ECS 2019.

Results related to Chapter 4

Table A B.5. Enterprise characteristics and direct employee involvement in decision-making on training (Box 4.1)

Dimension	Independentent variable	Dependent variable: Direct employee involvement in decision-making on training
Sector (omitted: Manufacturing)	Wholesale & Retail Trade	-0.0517* (0.0303)
	Transportation & Storage	-0.0284 (0.0423)
	Accommodation & Food	0.0589 (0.0394)
	Information & Communication	0.117*** (0.0284)
	Financial & Insurance	0.0634 (0.0747)
	Real Estate	0.139 (0.104)
	Professional Services	0.0608* (0.0326)
	Administrative & Support	0.0826 (0.0679)
	Arts & Recreation	0.0658 (0.109)
	Other Services	0.0459 (0.0343)
Size (omitted: 250+ employees)	50 to 249 employees	0.0180 (0.0164)
Age (omitted: 30+ years)	10 years or less	-0.0123 (0.0382)
	11 to 20 years	0.0810*** (0.0296)

Dimension	Independentent variable	Dependent variable: Direct employee involvement in decision-making on training
	21 to 30 years	0.0787** (0.0344)
Levels of hierarchy (omitted: 3+ levels)	1 or 2 levels	-0.0554 (0.0334)
	3 levels	-0.0372** (0.0152)
Product market strategy (omitted: lower prices)	Customisation	0.0874* (0.0481)
	Introducing new products/services	0.0119 (0.0433)
	Better quality	0.0394 (0.0518)
Technology adoption (omitted: technology not adopted)	Uses robots	0.00232 (0.0358)
	Purchased customised software	0.0442** (0.0186)
	Use data analytics	0.0883*** (0.0213)
HPWPs (omitted: practice not adopted)	Workforce autonomy	0.106*** (0.0161)
	Performance pay	0.0492 (0.0358)
	Teamwork	0.0592*** (0.0219)
Observations		5,509

Note: Note: The table reports average marginal effects from a probit model. *** reports marginal effects for which p<0.01, ** when p<0.05, and * when p<0.1. Direct influence defined as 'great or moderate extent' as response to answer to the question 'Please think of the period since the beginning of 2016. In your opinion, to what extent have employees directly influenced management decisions in the following areas?. Clustered standard errors between parentheses.
Source: OECD calculations, using microdata from ECS 2019.

Annex C. Briefing note for country experts

About this note

This note provides detailed guidance for consultants for the OECD project *Enterprise training strategies to manage skills needs*. It sets out the aims and objectives of the research project, the tasks involved and expected outputs, as well as timeline and communication channels with the OECD. Further, it includes a glossary of some of the key terms related to this research.

Aims and objectives of the research

Enterprises are a key provider of education and training for adults across OECD countries. Every year, 75% of enterprises with more than 10 employees provide training measures or activities to their employees, according to the OECD *Dashboard on priorities for adult learning* (OECD, 2019[15]). The training measures imply significant investments: In European OECD countries, close to 10% of all enterprises' investments are made in training, according to the EIB Investment Survey. However, there are large differences in training provision across countries. While in Norway, 99% of enterprises provide such training; this is only the case for 22% in Greece. Similarly, gaps exist between differently sized companies: 65% of employees in larger enterprises take part in education and training in any given year, while only 50% in small and medium enterprises do, according to OECD PIAAC data.

We currently lack an in-depth understanding of why, how and for whom enterprises provide training and of what limits training provision. This study aims at complementing existing large-scale quantitative enterprise surveys on employee training, such as the Continuing Vocational Training Survey, and shedding light on these issues. In particular, the study will analyse:

- What type of training enterprises provide, how they do so, and how they benefit. It will also investigate reasons for the under-provision of training. Special attention will be devoted to the decision-making processes regarding skills planning and training provision.
- How economic context, enterprise characteristics and management practices affect if, why, how and what training is provided and to whom.
- How businesses create opportunities for informal learning.

In doing so, this study aims to help increase the understanding of what policy interventions could support enterprises in providing more and better training to their employees.

The focus of this research is on enterprise-provided training for adults. In the context of this project, adult training is defined as training for individuals who have completed their initial education and entered working life. It thus excludes apprenticeship schemes.

Tasks involved

Data collection for this research project will take place in the form of semi-structured interviews with 100 enterprises in five countries: Austria, Estonia, France, Ireland and Italy. 20 interviews will be conducted in

each of these countries. Consultants will support the OECD in the implementation of these interviews. Specifically, tasks involve:

- Selection of enterprises and interviewees within enterprises following a specified set of criteria,
- Translation of the questionnaire, as relevant,
- Conducting interviews,
- Coding interviews in English.

Selection of enterprises

Each consultant will **select a sample of 20 enterprises**, following a quota sampling strategy. This implies that consultants must ensure that their sample of interviewed enterprises meets a set of specified criteria. Quota sampling aims to secure the diversity of the sample and, by extension, the generalisability of study findings. Apart from following the quota sampling approach, consultants are free in how they select enterprises. They can use sample frames, such as company registers, where they exist. Consultants must submit their final sample selection to the OECD for sign-off before arranging interviews and therewith highlight how the criteria specified are met. At this point, consultants should be confident about the feasibility of interviewing the selected enterprises, for example by tentatively confirming their availability for the study. In the case of unavailability of an enterprise following sign-off by the OECD, consultants should consult with the OECD on replacement enterprises. The sample of enterprises selected should meet the following criteria:

Table A C.1. Quotas for the sampling of enterprises

	Country	
Total	20 enterprises	
Size	10 medium enterprises 10 large enterprises	
Location	10 enterprises in cities, towns and suburbs 10 enterprises in rural areas	
Sector	10 enterprises in the service industry	5 knowledge-intensive services 5 less knowledge-intensive services
	10 enterprises in the manufacturing industry	5 high-technology manufacturing 5 medium to low-tech manufacturing

Enterprise size: As highlighted above, the probability of providing training to employees varies by company size. This study will include medium and large enterprises. Small enterprises are to be excluded from the study, as they form a sub-group with specific training behaviours and strategies, which has been studied in-depth in a recent CEPS study on behalf of the European Commission (forthcoming). The definition of enterprise size follows that of the European Commission:

- Medium-sized enterprises have 50-249 employees;
- Large enterprises have 250 employees or more.

Consultants must select 10 medium-sized and 10 large enterprises for interviews.

Location: Enterprises' location likely has an impact on training provision, as the presence of education and training providers will vary between different regions and between rural and urban areas. According to the European Degree of urbanisation classification (DEGURBA), local administrative units can be categorised into three types of areas:

- Cities: densely populated areas;
- Towns and suburbs: intermediate density areas;
- Rural areas: thinly populated areas.

Consultants must select 10 enterprises based in cities, towns or suburbs and 10 based in rural areas. A correspondence table of how the classification applies to local areas in each country is provided alongside this note. The table is provided for information purposes and to facilitate the selection of enterprises. Consultants may deviate from this classification where appropriate, but must flag and explain any deviation. Consultants are also requested to ensure that the 10 enterprises selected in urban areas are not all clustered in the wider capital region (e.g. Tallinn in Estonia), but also sampled from other urban centres (e.g. Turku in Estonia).

Sectors: Training practices of enterprises vary vastly between different sectors of the economy and between more or less technology-oriented sub-sectors within them. To include enterprises in sufficiently diverse sectors of the economy, consultants must select:

- 10 enterprises in the manufacturing sector;
- 10 enterprises in the service sector.

Differentiating the selection by technology intensity, enterprises in the manufacturing sector should include:

- 5 enterprises in sub-sectors of the economy considered high or medium-high technology (e.g. manufacturing of computers, pharmaceuticals or motor vehicles);
- 5 enterprises in sub-sectors of the economy considered medium-low or low technology (e.g. manufacturing of plastic products, food products or textiles);

Differentiating the selection by knowledge-intensity, enterprises in the service sector should include:

- 5 enterprises in sub-sectors of the service industry considered knowledge-intensive (e.g. financial and insurance activities, scientific research and development or telecommunications)
- 5 enterprises in sub-sectors of the service industry that are considered less knowledge intensive (e.g. wholesale and retail trade, accommodation and food services, or warehousing)

To facilitate the selection, a classification of manufacturing sub-sectors by technology or knowledge intensity can be found here.

Multi-establishment enterprises: The final sample of enterprises will likely include single and multi-establishment enterprises. In the case of multi-establishment enterprises, a decision must be made if interviews should be conducted with staff at the head-office or staff at one specific establishment. All interviews for one enterprise should however be conducted at the same location. Consultants should base this decision on their own assessment of where HR and training decisions are most likely to take place. This decision may be different for different multi-establishment enterprises. In the data collection template, it must be clearly indicated at what level the interview took place.

Selection of interviewees

Within each company, consultants should request interviews with three different stakeholders:

- Management representative, i.e. a representative of the enterprise's leadership team. This could be individuals with the title Chief Executive Officer, Chief Operating Officer, (Vice) President, Director or General Manager amongst others. In the case of owner-operated businesses, this may also be the business owner. Crucially, a management representative should be able to answer questions about the enterprise, its strategic orientations and general HR practices.
- HR representative, i.e. a representative of the enterprise's human resources team. Where they exist, consultants should speak to an HR representative responsible for training and development in the enterprise. In cases where no HR function exists, for example in smaller companies, consultants should request to speak to the individual who most frequently deals with HR related questions from the management team.

- Employee representative, i.e. an employee who represents employee interests in the enterprise. This ideally includes someone who has been formally chosen by other employees to represent them in negotiations or consultations with employers. Exact title and function of these representatives will vary between country contexts, but they include members of works councils, staff councils, union representatives or employee delegates. The type and denomination of employee representation existing in the different countries covered by the study is provided to facilitate the identification of interviewees. In cases where no formal employee representatives exist, consultants should request to speak to an employee in a leadership role, who does not belong to the company's management team (e.g. a forman or shop floor manager).

Stakeholders should be interviewed independently of each other in a one-to-one setting.

In smaller companies, it is possible that the same person exercises management and HR functions. In this case, consultants are requested to conduct one interview that combines questions for both target groups (see also conducting interviews below).

Conducting interviews (and translating topic guides)

Mode: When the study was conceived in late 2019/ early 2020, the OECD anticipated that all interviews would be conducted face-to-face. Given the ongoing uncertainties and travel restrictions related to the COVID-19 pandemic, interviews should now take-place virtually as video conference, or if not otherwise possible, via phone. Depending on the situation in their specific country, consultants are invited to conduct some interviews in person, as necessary and appropriate. Face-to-face interviews may be necessary, where the enterprise's access to video or phone conferencing technology is limited or the consultant believes that the interview can be held more effectively in a face-to-face setting.

Duration and schedule: Each interview is expected to have a duration of 1-1.5 hours. When interviews are conducted as video-conference, the three interviews per enterprise do not have to be conducted on the same day. Consultants are encouraged to design their own interviewing schedule as they see fit. However, it is recommended to start interviews at each company with the management, followed by the HR representative and then the employee representative. This allows the consultant to gain an understanding of the enterprise's training policies and practices, before investigating the role of employees in shaping these.

Format and topic guides: Interviews will follow a semi-structured format. Alongside this note, consultants receive three semi-structured topic guides, which include a series of open-ended questions, as well as additional prompts and probes for follow-up:

- Management topic guide;
- HR topic guide;
- Employee representative topic guide.

In companies, where management and HR representatives are equivalent, consultants are requested to draw on both topic guides. More generally, the semi-structured interview format allows consultants to use the topic guides flexibly to gather the relevant information for the study. It is expected that interviews will be free flowing and not rigidly follow the chronological order outlined. Consultants should however ensure to collect information on all relevant study themes (see also data recording template).

Language: Interviews should be conducted in the local language. Consultants are requested to translate the questionnaires accordingly.

Piloting: Interviews with the first two enterprises in each country will be used for the purpose of piloting the methodology and topic guides. During this piloting phase, OECD staff will be present during the interviews. Following the interviews, consultants and OECD staff will enter a discussion about possible

improvements of the topic guides, both individually and together with the group of all consultants in different countries.

Note taking and recording: Consultants must take comprehensive notes during the interview. These will later form the basis for the data entered into the recording template (see below). Consultants should also seek informed consent for the interview to be recorded for quality-assurance purposes, either in the video-conferencing software used or with a manual recording device.

Coding (and translation)

For the OECD to conduct a comparative analysis on the data collected through the interviews, these need to be codified in a standardised format and in English language.

Consultants are provided with two standardised data-recording template alongside this briefing note. For each company both of the following documents must be filled in:

- Excel document, where firmographics should be codified. Consultants will use drop-down menus with pre-defined categories, e.g. Economic activity of enterprise using NACE codes, to codify a small number of enterprise and interviewee characteristics.
- Word document, where consultants are asked to provide a synthesised account of all three interviews. The template is organised thematically and should be completed based on the extensive notes taken during the interview. Where diverging views exist between different interviewees, these should be highlighted in the template.

Both files should be named using a standardised format, stating the country, unique identifier and company name. For example EST-1-Eesti Energia or AUT-15-Strabag.

Timeline and expected outputs

A simplified timeline for consultants' involvement in the research project is shown below. The data collection/ fieldwork phase that consultants will be involved in will stretch from August to November 2020. This will be followed by an analysis phase, led by the OECD in December 2020 to February 2021. The final report will likely be launched in Q2 2021.

Table A C.2. Tentative timeline and expected outputs

Task	Timeline	Expected outputs
Contract award and briefing		
Notification of contract award	By end of July 2020	/
Briefing of contractors	September 2020	/
Sampling and piloting		
Sampling of enterprises	Mid-September 2020	List of 20 enterprises with indication how they meet sampling quotas
Translation of questionnaires	Mid-September 2020	/
Piloting of questionnaires, discussion with all contractors	September/ early October 2020	Revised topic guides (by OECD), as necessary
Data collection and recording		
Data collection	September – November 2020	/
Data recording (and translation) using data recording template	November – early December 2020	20+20 data recording templates completed in English, files of actual recordings of interviews
Debrief and review		
Debrief with all contractors to discuss research challenges and first findings	Early December 2020	/

Task	Timeline	Expected outputs
Provision of further information on interviews	December 2020/January 2021	Response to any clarifications sought by the OECD team on the submitted templates
Participation in country-specific validation workshops (organised by the OECD)	February/March 2021	/

Communication with the OECD team

Consultants are encouraged to stay in close contact with the OECD team throughout the research project. Key contact points from OECD side are:

- Anja Meierkord, Anja.Meierkord@oecd.org, +33 (0) 185 55 64 73
- Julie Lassébie, Julie.Lassebie@oecd.org, +33 (0) 145 24 96 29

There will be several opportunities to discuss methodological issues and research findings with the entire group of contractors, including: i) the initial briefing, ii) a discussion following the piloting of questionnaires, iii) the final debrief.

Consultants are further encouraged to submit any comments or questions they might have to the OECD team through the project. The OECD team will share this information with all other consultants, as relevant, to ensure standardisation of data collection across all five countries.

Definitions

Skill: ability to apply knowledge and use know-how to complete tasks and solve problems.

Formal education and training: Education and training that are institutionalised, intentional, planned through public organisations and recognised private bodies, lead to qualifications that are recognised as formal or equivalent to formal qualifications by the relevant national or sub-national education authorities, and – in their totality – constitute the formal education system of a country. Formal education programmes are thus recognised as such by the relevant national education or equivalent authorities, e.g. any other institution in co-operation with the national or sub-national education authorities. Formal education consists mostly of initial education […]. Vocational education, special needs education and some parts of adult education are often recognised as being part of the formal education system. Qualifications from formal education are by definition recognised and, therefore, are within the scope of ISCED.

Non-formal education and training: Education and training that are institutionalised, intentional and planned by an education provider. The defining characteristic of non-formal education is that it is an addition, alternative and/or complement to formal education within the process of lifelong learning of individuals. Non-formal education mostly leads to qualifications that are not recognised as formal or equivalent to formal qualifications by the relevant national or sub-national education authorities or to no qualifications at all. It caters to people of all ages but does not necessarily apply a continuous pathway structure; it may be short in duration and/or low intensity; and it is typically provided in the form of short courses, workshops or seminars.

Informal learning: Contrary to formal and non-formal learning, informal learning is not institutionalised, in the sense that there is no organisation responsible for setting the teaching and learning method, the learning schedule, the admission requirements and the venue of the learning/teaching activity. Compared with formal and non-formal learning, it is also less organised and less structured though still intentional, and may include learning activities that occur in the family, in the workplace, and in the daily life of every person, on a self-directed, family-directed or socially-directed basis. Examples include non-institutionalised

coaching activities, learning groups, quality circles, discussions with colleagues about work matters with the explicit aim of learning, and self-directed learning using, for instance, internet searches.

Institutionalised learning: Learning activities that occur when there is an organisation which provides structured educational arrangements, such as student-teacher relationships and/or interactions, that are specially designed for education and learning.

Employer-provided training: Any training that is provided by and/or paid for by employers. It refers both to specific training tailored to the needs of a given enterprise or industry and to general training developed for the acquisition of skills that are useful across enterprises and industries.

On-the-job-training: This type of training is characterised by planned periods of training, instruction or practical experience, using normal regular workplace tools and equipment, either at the immediate place of work or in a work-situation, with the presence of a tutor.

Training provider: Organisation that provides education/training, either as a main or ancillary objective. This can be a public educational institution as well as a private enterprise, non-governmental organisation or non-educational public body.

Establishment: Business or industrial unit at a single, physical location that produces or distributes goods or performs services (e.g. store, factory, farm, etc.).

Enterprise: It may consist of more than one establishment, performing the same or different types of economic activities.

Performance assessment system: Also known as performance appraisal system, it is a method by which the job performance of an employee is documented and evaluated. It consists of regular reviews of employee performance.

Workforce strategy: A plan for hiring, developing and motivating staff, as well as how to best utilise their skills.

Trade union: An association of employees forming a legal unit which acts as a bargaining agent and legal representative. Trade unions are not only active in one company, but in one or more entire sectors. Trade unions are collective bargaining parties and negotiate collective agreements with individual employers or the employers' association of an industry.

Works council: A shop-floor organisation representing the employees of a company, composed of representatives elected by their colleagues. It acts as a complement to trade unions but in several countries is independent of these. It negotiates works agreements.

Annex D. Data recording template

Interviewer instructions

- Please summarise the information collected in the three interviews conducted with each enterprise below.
- Please provide your summaries in English language
- You can provide information in bullet points or as narrative text.
- Please ensure that you complete all sections and sub-sections. Where no information is available, please indicate accordingly.
- We encourage you to highlight where views between different interviewees diverged and set out these differences clearly below.
- Please ensure filling in the accompanying Excel-template on firmographics.
- In brackets, we have indicated which question or questions from the topic guides should enable you to complete each bullet point.

About the interviewees

Management

- Describe the interviewee's career background (Q1_M, Q2_M, Q3_M, Q5_M).
- Describe the interviewee's attitudes to learning over the life-course. Please provide your own judgement of this, not only based on the interviewee's self-reported attitudes, but also their answer to other interview questions (mainly Q4_M, but drawing on other answers too).

HR

- Describe the interviewee's career background (mainly Q1_HR, Q2_HR, Q3_HR, Q5_HR).
- Describe the interviewee's attitudes to learning over the life-course. Please provide your own judgement of this, not only based on the interviewee's self-reported attitudes, but also their answer to other interview questions (mainly Q4_HR, but drawing on other answers too).

Employee representative

- Describe the interviewee's career background (Q1_ER).
- Describe in what role the interviewee represents employees (Q2_ER).
- Describe the interviewee's background as an employee representative (Q1_ER).
- Describe the interviewee's attitudes to learning over the life-course. Please provide your own judgement of this, not only based on the interviewee's self-reported attitudes, but also their answer to other interview questions (mainly Q3_ER, but drawing on other answers too).

About the enterprise

Composition of the workforce

- Describe the composition of the workforce (Q12_M)
  - Age profile
  - Gender breakdown
  - Educational background
  - Fixed vs. permanent contracts

Organisational structure

- Describe the organisational structure of the enterprise (Q13_M)
  - E.g. functional structure, divisional structure, market-based structure, matrix structure, project-based structure
  - Levels of hierarchy

Strategic orientations

- Describe the enterprise's strategy to stay competitive (Q16_M)
- Describe investment priorities in the past 3 years and reasons behind these investments (Q17_M)

Financial situation

- Describe the financial situation of the enterprise pre COVID-19 crisis (Q11_M, Q18_M)

COVID-19 Crisis impacts

- Describe the impact of COVID-19 crisis on the enterprise (Q11_M, Q18_M, Q19_M)
  - Impact on profitability
  - Impact on orders
  - Impact on employee numbers
  - Application of short-time work
  - Other

High-performance work practices

Performance management system

- Describe the performance management system of the enterprise (Q24_HR, Q15_ER)
- Describe the links between performance assessment and pay, promotion prospects, training opportunities (Q24_HR, Q15_ER)
- Please give your view on how formal the performance management system is, or if it mainly relies on informal rules (Q24_HR, Q15_ER)

Autonomy, flexibility and dealing with mistakes

- Describe the degree of autonomy and flexibility of employees to plan their work (Q22_HR, Q13_ER)
  - Share of employees deciding how and when best to fulfil tasks
  - Share of employees working in autonomous teams
- Describe the attitude of the enterprise towards making mistakes (Q23_HR, Q14_ER)
  - E.g. avoiding mistakes at all costs, seeing mistakes as an opportunity for learning

Social dialogue and employee voice

- Describe how dialogue between employees and management is organised (Q4_ER)
  - Existence of works council and/or trade union
  - Form of interaction between management and employees
  - Opportunities for direct interaction between individual employees and management
- Describe what role the issue of training plays in negotiations between management and employee representatives (Q6_ER)

Offering training

Extent of the training offer

- Describe to what extent the enterprise provides training opportunities to its employees (Q20_M, Q6_HR, Q5_ER)
  - Share of employees taking part in training in given year
  - Typical number of days of training per employee
- Describe if and which groups in the enterprise train more than others (Q20_M, Q6_HR)
  - People in specific jobs
  - People with specific individual characteristics (age, time in enterprise, education level)
- Describe if the enterprise offers specific training for employees in disadvantaged position on the labour market (Q20_M, Q6_HR)
  - People at risk of automation
  - People with low skill levels

Reasons for and benefits of providing training

- Describe the reasons of the enterprise for providing training (Q22_M, Q14_HR, Q10_ER, Q11_ER)
  - E.g. productivity gains, staying competitive, adapting to change, employee satisfaction and retention, lack of skilled personnel, skills shortages, regulation or legal requirements, common practice, government incentives
- Please give your view on which of these reasons is most important for the enterprise (Q22_M, Q14_HR)

Obstacles to providing training

- Describe obstacles to providing more training (Q23_M, Q15_HR, Q12_ER)

- E.g. Limited time for certain staff to participate in training, difficult to assess skill needs of different employees, difficult to find time to organise training internally, training is too expensive, difficult to find suitable courses offered by external providers

Alternatives to offering training

- Describe other ways the company ensures that it has the skills required to perform its activities (Q25_M)
  - E.g. hiring, outsourcing, technological solutions, automation, informal learning

COVID-19 Crisis impacts

- Describe to what extent the COVID-19 crisis has affected the decision to provide training (Q21_M, Q10_HR)
- Describe if these COVID-19 is expected to have a lasting impact on the extent to which training is provided (Q21_M, Q10_HR)
- Describe to what extent the COVID-19 crisis has affected the reasons for providing training (Q24_M, Q16_HR)
- Describe if these COVID-19 has permanently changed the reasons for providing training in this enterprise (Q24_M, Q16_HR)

Planning training

Workforce strategy

- Describe the workforce strategy, where it exists (Q7_HR, Q8_ER)
  - Time horizon
  - Methods for assessing skill levels of employees
  - Methods for assessing current and future skill needs of enterprise
  - Stakeholders involved in developing the strategy
  - In particular:
  - Level and type of involvement of employee representatives in the development of the strategy (advisory vs. decision-making)
  - Direct involvement of employees in the development of the strategy
- Describe alternative approaches of workforce planning in the absence of a strategy (Q8_HR)

Decision-makers

- Describe who plans training in the enterprise (Q14_M, Q7_HR, Q8_ER)
  - Existence of HR department
  - Existence of person with specific training responsibilities
- Describe how decisions around training are co-ordinated between HR and other departments (Q15_M, Q7_HR, Q8_HR, Q8_ER)
- Describe the role of employee representatives in making training decisions (Q14_M, Q9_ER)
- Describe the role of individual employees in making training decisions (Q14_M, Q7_HR, Q8_HR, Q8_ER)

- Describe how employees access training in the enterprise (Q9_HR, Q7_ER)
  - Assessment of skills and training needs
  - Information about training offer
  - Decision-making about what training is offered
  - Voluntary or obligatory training participation

Assessing if expected benefits materialise

- Describe to what extent the enterprise assess if benefits of training materialise (Q17_HR)
  - E.g. existence of certification of skills or knowledge, assessment of skills use at work and/ or employee behaviour or performance, assessment of departmental or enterprise performance, assessment of employee satisfaction, assessment of individual wage or career progression

External support

- Describe to what extent the enterprise is getting external support, e.g. from government bodies, employer associations or sectoral bodies in the planning or provision of training (Q13_HR)
  - Use of external information, resources and/or financial incentives
- Set out if the use of external support has changed in the context of the COVID-19 crisis (Q13_HR)

Developing and delivering training

Decision-makers

- Describe who develops training programmes in the enterprise (Q11_HR, Q12_HR)
  - Role of individual employees and employee representatives
  - Role of external training providers

Providers

- Describe how training is being delivered (Q11_HR, Q12_HR)
  - Through in-house staff or by external providers
- Describe what drives these choices (Q11_HR, Q12_HR)
- If relevant, describe how external providers are being selected (Q11_HR)

Types of training

- Please give your view on the distribution or balance of different training offers in the enterprise (Q21_HR)
  - Formal, non-formal and informal learning opportunities
  - Class-room vs. on-the job training vs. online
  - Internal vs. externally delivered training
- Name the three most frequently taken up trainings in the enterprise (Q18_HR)
- Describe two of these trainings in further detail (Q19_HR, Q20_HR)
  - Reasons for offering this training
  - Expected learning outcomes

- Target group
- Duration, mode of delivery
- Degree of formalisation (qualification, certification)
- Benefits from training

Fostering a learning environment

- Describe to what extent and in what ways employees have opportunities to learn in their day-to-day work (Q25_HR, Q16_ER, Q17_ER)
  - Frequent assignment of new tasks or formal job-rotation
  - Exposure to unfamiliar problems
  - Pairing with more experienced employees
  - Opportunities for learning by observing colleagues
  - Opportunities for information sharing amongst colleagues
- Please give your view to what extent these opportunities are formalised – in the sense that they are encouraged and/or organised by the enterprise on a large scale (Q25_HR, Q16_ER)
- Describe to what extent and in what ways employees are encouraged to keep up to date with new products and services, processes or other recent developments in the industry (Q26_HR, Q18_ER)

Annex E. Topic guide management

Interviewer notes

- Outline the aims of the study and purpose of the interview.
- Inform the interviewee of the likely duration.
- Provide a brief overview of the scope of the issues the discussion will be looking to explore.
- Request permission to record the interview.
- Outline the treatment of data gathered and the approach to confidentiality.
- Gain explicit consent for the interview and its recording based on this.
- Check if the interviewee has any questions prior to commencing the discussion.
- Ensure that the interview is tailored to the interviewee and firm type.
- Feel free to change the order of the questions, as long as all questions are covered.

Part 1 – About the interviewee

I would like to start with asking a few questions about yourself.

1. Could you please describe your current role in [Enterprise]?
   Prompt:
   - *time in post, time in company*
   - *current remit, area of responsibility*
   - *previous roles*
2. If you are happy to share, could you please tell me which year and month you were born in?
3. What is the highest qualification that you have obtained?
4. What is your own attitude towards learning throughout your life?
   Prompt:
   - *Why do you think it is important to keep you skills up-to-date?*
   - *How do you keep your skills up-to-date?*
   - *Do you take part in courses, seminars or workshops for learning purposes? When was the last time you took part in any of them?*
5. [For interviewer only: Is the respondent male or female?]

Part 2 – About the enterprise/establishment

I would now like to ask you some general questions about your [enterprise/establishment].

6. What is the main economic activity of the enterprise?
7. Is this the only establishment of this enterprise, or does your enterprise have other establishment, each with its own location, management, activities and financial statements?

8. Probe if yes:
    - *How many other establishments are there and in where are they located?*
9. Since what year has this enterprise been carrying out this activity? Please disregard any changes in ownership structure or location.

    Prompt:

    - *In the case of a past acquisition, please refer to when the acquiring enterprise was registered or, in the case of a merger, to the largest enterprise involved in terms of employees.*
10. Is this enterprise a family business?

    Prompt:

    - *Has this enterprise been owned by multiple generations of the same family?*
    - *Are two or more members of your management team from the owning family?*
11. Approximately how many people work in this [enterprise/establishment]? Your best guess is enough. Please think of all people employed full-time or part-time, regardless of the type of contract and of whether they are physically present or carry out their work outside of the premises.

    Prompt:

    - *Less than 50, 50-100, 100-250, 250-500, 500-1000, more than 1000*
12. Has this number increased or decreased in the past five years?

    Probe:

    - *Did the COVID-19 crisis have any impact on this development?*
13. Could you describe the composition of your workforce to me?

    Prompt:

    - *Age profile*
    - *Gender breakdown*
    - *Educational background*
    - *Fixed vs. permanent contracts*
14. Could you describe how the [enterprise/establishment] is organised?

    Prompt:

    - *Existence of organisational chart*
    - *Type of organisational structure*
    - *If hierarchical structure: number of levels*
15. At a strategic level, who is responsible for planning training in your enterprise?

    Prompt:

    - *Do you have an HR department?*
    - *Is there a person with specific responsibility for training in your HR department?*
    - *If you do not have an HR department, who is responsible for assessing training needs and provision?*
    - *Are employees or employee representatives involved in the planning? How?*

[If relevant].

16. How are HR decisions around training co-ordinated with the decisions in other departments, particularly when it comes to the identification of skill needs and the planning of training?

[Continue with all interviewees]

17. What strategy does your enterprise use to stay competitive?

Prompt:

- *offer products or services at lower prices than the competition*
- *offer products or services of better quality than the competition*
- *customise products or services to meet specific customer requirements*
- *develop new/innovative products, services or processes*

18. Over the past three years, what were the main investment priorities of this enterprise?

    Probe:

    - *What were your big investments in these areas?*
    - *Why did you chose to invest in these areas?*

19. If you are comfortable sharing this information: before the COVID-19 crisis, what was the overall financial situation of the enterprise?

    Probe:

    - *How has this changed in the context of COVID-19?*

20. Were there any other ways in which your business was affected by the COVID-19 crisis?

    Prompt:

    - *Impact on orders*
    - *Impact on employee numbers*
    - *Application of short-time work*

Part 3 – Skills and training strategy

I would now like to ask some questions around why your enterprise is providing training and what it is hoping to get out of it.

21. To what extent does your enterprise provide training opportunities to its employees?

    Probe:

    - *What share of employees take part in training in a given year?*
    - *How many days does a typical employee take part in training?*
    - *What groups of employees train more?*
    - *Are these people in specific jobs?*
    - *Do these people have specific personal characteristics (age, time in enterprise, level of education)?*
    - *Does the [enterprise/establishment] offer specific training for employees in a disadvantaged position on the labour market, for example those in jobs at risk of automation or those with low skills?*

22. Has the economic uncertainty induced by the COVID-19 epidemic affected your training provision in recent months?

    Probe if yes:

    - *How so?*
    - *Do you think these changes will be permanent? If not, how long will these changes to your approach to training persist?*

23. What are the main reasons your [enterprise/establishment] provides training to its employees?

    Prompt:

    - *Productivity gains*
    - *Staying competitive*
    - *Adapting to change* (i.e. *technical, organisational, or demographic change)*
    - *Employee satisfaction and retention*

- *Lack of skilled personnel, skills shortages*
- *Regulation or legal requirements*
- *Common practice amongst companies in the sector or beyond*
- *Government incentives*

24. Would your [enterprise/establishment] benefit from providing more training to its employees? If yes, what are the main obstacles to providing more training?

    Prompt:

    - *Limited time for certain staff to participate in training*
    - *Difficult to assess skill needs of different employees*
    - *Difficult to find time to organise training internally*
    - *Training is too expensive*
    - *Difficult to find suitable courses offered by external providers*

25. Have your reasons for providing training changed in recent months due to the economic uncertainty caused by the COVID-19 pandemic?

    Probe if yes:

    - *Do you expect this to be a long-term change in your [enterprise's/establishment] approach to training? If not, how long do you think that these changes to your approach to training will persist?*

26. Providing training is only one the strategies to make sure that an enterprise has the skills required to perform its activities. To what extent do you rely on any of the following solutions compared to training?
    - *Hiring in people with the required skills*
    - *Outsourcing activities for which you do not have the skills in-house to other companies*
    - *Relying on other solutions (for instance technological solutions, such as automation of certain tasks, learning by doing, or any other solution)*

Part 4 – Close

27. Are there any further comments you would like to make?

Thank the interviewee for their time and briefly discuss next steps.

Annex F. Topic guide HR management

Interviewer notes

- Outline the aims of the study and purpose of the interview.
- Inform the interviewee of the likely duration.
- Provide a brief overview of the scope of the issues the discussion will be looking to explore.
- Request permission to record the interview.
- Outline the treatment of data gathered and the approach to confidentiality.
- Gain explicit consent for the interview and its recording based on this.
- Check if the interviewee has any questions prior to commencing the discussion.
- Ensure that the interview is tailored to the interviewee and firm type.
- Feel free to change the order of the questions, as long as all questions are covered.

Part 1 – About the interviewee

I would like to start with asking a few questions about yourself.

1. Could you please describe your current role in [Enterprise]?
   Prompt:
   - *time in post, time in enterprise*
   - *current remit, area of responsibility*
   - *previous roles*
2. If you are happy to share, could you please tell me which year and month you were born in?
3. What is the highest qualification that you have obtained?
4. What is your own attitude towards learning throughout your life?
   Prompt:
   - *Why do you think it is important to keep you skills up-to-date?*
   - *How do you keep your skills up-to-date?*
   - *Do you take part in courses, seminars or workshops for learning purposes? When was the last time you took part in any of them?*
5. [For interviewer only: Is the respondent male or female?]

Part 2 – Processes and structures for providing training

I would now like to get a better understanding of how training is organised in your [enterprise/establishment].

6. To what extent does your enterprise provide training opportunities to its employees?
   Probe:

- *What share of employees take part in training in a given year?*
- *How many days does a typical employee take part in training?*
- *What groups of employees train more?*
- *Are these people in specific jobs?*
  Do these people have specific personal characteristics (age, time in enterprise, level of education)?
- *Does the [enterprise/establishment] offer specific training for employees in a disadvantaged position on the labour market, for example those in jobs at risk of automation or those with low skills?*

7. Does your [enterprise/establishment] have a workforce strategy, i.e. a plan for hiring, developing and motivating staff, as well utilising their skills?

   Probe:

   - *What is the time horizon of this strategy?*
   - *How do you assess which skills your workforce currently has? What information do you use?*
   - *How do you assess which skills your enterprise need in the future? What information do you use?*

[If Q07=no].

8. If you do not have a workforce strategy, what guides your approach to training employees?

   Probe:

   - *How are HR decisions around training co-ordinated with the decisions in other departments?*

[Continue with all interviewees].

9. Consider a hypothetical employee in your [enterprise/establishment]. Can you describe how they would access training?

   Prompts:

   - *How do you assess if the employee needs or wants training?*
   - *How does the employee finds out about the different training opportunities on offer?*
   - *Who decides if the employee is being offered training?*
   - *Is training participation voluntary for the employee?*

10. Has the economic uncertainty induced by the COVID-19 epidemic affected your decision to provide or not provide training in recent months?

    Probe if yes:

    - *How so?*
    - *Do you think these changes will be permanent? If not, how long will these changes to your approach to training persist?*

Thinking about your overall training offer:

11. Do you deliver most of your training through in-house staff or using external providers?

    Probe:

    - *Why did you make this choice?*
    - *If you provide training externally, how do you select the training provider?*
    - *If you provide training externally, do you get input from employees or employees' representatives on the selection of the training providers?*

[If Q12=in house staff].

12. Can you describe how you develop training programmes in your [enterprise/establishment]?

Probe:

- *Do you get still get some input from training providers, for example when it comes to curricula, teaching methods or skills assessments?*
- *Do you get input from employees or employees' representatives?*

[Continue with all interviewees]

13. Do you get support, for example from government bodies, employer associations or sectoral funds, in the planning, provision or financing of training?

    Probe:

    - *How and where do you get information on available training options or training-related support for [enterprises/establishments]?*
    - *What external resources are available to HR department or management to identify training needs and for training planning?*
    - *How many employees participate in training programmes funded (at least partly) by government, employer associations, sectoral funds, etc?*
    - *Has this changed in the context of COVID-19?*

Part 3 – Reasons for and benefits of providing training

I would now like to ask some questions around why your [enterprise/establishment] is providing training and how it is hoping to benefit from it.

14. What are the main reasons your [enterprise/establishment] provides training to its employees?

    Prompt:

    - *Productivity gains*
    - *Staying competitive*
    - *Adapting to change (*i.e. *technical, organisational, or demographic change)*
    - *Employee satisfaction and retention*
    - *Lack of skilled personnel, skills shortages*
    - *Regulation or legal requirements*
    - *Common practice amongst companies in the sector or beyond*
    - *Government incentives*

15. Would your [enterprise/establishment] benefit from providing more training to its employees? If yes, what are the main obstacles to providing more training?

    Prompt:

    - *Limited time for certain staff to participate in training*
    - *Difficult to assess skill needs of different employees*
    - *Difficult to find time to organise training internally*
    - *Training is too expensive*
    - *Difficult to find suitable courses offered by external providers*

16. Have your reasons for providing training changed in recent months due to the economic uncertainty caused by the COVID-19 pandemic?

    Probe if yes:

    - *Do you expect this to be a long-term change in your [enterprise's/establishment] approach to training?*

17. Do you check if the expected benefits of providing training – both for the enterprise and employees – materialise in practice? If so, how?

    Prompt:

- *Certification of skills and/or knowledge after written or practical test*
- *Assessment if skills and/or knowledge acquired is used at work*
- *Assessment of employee behaviour or performance with regards to training objectives*
- *Assessment of impact of training on performance of relevant departments or the whole enterprise*
- *Assessment of satisfaction of employees*
- *Assessment of wage or career progression*

Part 4 – Types of training provided

I will now ask some questions to understand your training offer a bit better.

18. Looking across all training provided by your [enterprise/establishment], what would you say the three trainings are that are most frequently taken up by your employees?
19. Can you describe the content and format of [training 1 mentioned] a bit more?

    Prompts:

    - *Why do you offer this kind of training?*
    - *What do employees learn in this training?*
    - *Who typically takes part in this training?*
    - *How many days or hours is this training course?*
    - *Who delivers the training? (in-house trainer, versus external)*
    - *How is training being delivered? (class-room setting in or off the premises, work-based setting, online)*
    - *Can people obtain a qualification through this training? Or is the training certified?*
20. Can you describe the content and format of [training 2 mentioned] a bit more?

    Prompts:

    - *Why do you offer this kind of training?*
    - *What do employees learn in this training?*
    - *Who typically takes part in this training?*
    - *How many days or hours is this training course?*
    - *Who delivers the training? (in-house trainer, versus external)*
    - *How is training being delivered? (class-room setting, work-based setting, online)*
    - *Can people obtain a qualification through this training? Or is the training certified?*
21. Looking across your entire training offer, what is the balance between different formats and modes of delivery? Which are used more and which used less frequently?

    Prompt:

    - *Use of classes and courses in and off the premises, including online learning*
    - *On-the-job training*
    - *Training through quality circles, job-rotation*
    - *Learning from colleagues*

Part 5 – The learning environment

I will now ask some questions to understand how other organisational features of your [enterprise/ establishment] help or incentivise employees to learn in their day-to-day work.

22. In your view, what share of your employees plan their work autonomously and flexibly?

    Prompt:

    - *What share can decide how or when to best fulfil their tasks?*

- *What share works together in autonomous teams,* i.e. *teams in which members decide on the allocation of tasks and can choose a team leader?*

23. In your [enterprise/establishment], what happens if an employee makes a mistake?

    Prompt:

    - *Mistakes should be avoided at all costs;*
    - *Mistakes are discussed with the supervisor and corrected;*
    - *Employees are encouraged to find their own way of executing tasks, mistakes happen and are used as an opportunity to learn.*

Probe:

- *Does your approach to dealing with mistakes differ for different groups of employees?*

24. How do you assess the performance of your employees?

    Prompt:

    - *Do you have a formal performance management system?*
    - *Can you describe it in more details (frequency, format)?*
    - *Does the performance assessment directly affect*
        - *employee level of pay,*
        - *prospects for promotion and/or*
        - *training opportunities?*

25. In what other ways do your employees have opportunities to learn in their day-to-day work besides training?

    Prompt:

    - *Frequent assignment of new tasks or formal job-rotation*
    - *Exposure to unfamiliar problems*
    - *Pairing with more experienced employees*
    - *Opportunities for learning by observing colleagues*
    - *Opportunities for information sharing amongst colleagues*

    Probe:

    - *How formalised are these opportunities?*

26. How are employees encouraged to keep up to date with new products and services, new processes or other recent developments in the industry?

Part 6 – Close

27. Are there any further comments you would like to make?

Thank the interviewee for their time and briefly discuss next steps.

Annex G. Topic guide employee representative

Interviewer notes

- Outline the aims of the study and purpose of the interview.
- Inform the interviewee of the likely duration.
- Provide a brief overview of the scope of the issues the discussion will be looking to explore.
- Request permission to record the interview.
- Outline the treatment of data gathered and the approach to confidentiality.
- Gain explicit consent for the interview and its recording based on this.
- Check if the interviewee has any questions prior to commencing the discussion.
- Ensure that the interview is tailored to the interviewee and firm type.
- Feel free to change the order of the questions, as long as all questions are covered.

Part 1 – About the interviewee

I would like to start with asking a few questions about yourself.

1. Can you please describe your current role in [enterprise/establishment], in particular your role as employee representative?

   Prompt:

   - *time in post, time in company*
   - *current remit, area of responsibility*
   - *previous roles*

2. Do you formally represent employees? If so, in what way?

   Prompt:

   - *Member of trade union*
   - *Member of works council*
   - *Employee delegate*
   - *Other*

   Probe:

   - *How have you been chosen to represent employees in a formal process?*

3. What is your own attitude towards learning throughout your life?

   Prompt:

   - *Why do you think it is important to keep you skills up-to-date?*
   - *How do you keep your skills up-to-date?*
   - *Do you take part in courses, seminars or workshops for learning purposes? When was the last time you took part in any of them?*

Part 2 – About the enterprise

I would now like to ask you some general questions about your [enterprise/establishment].

4. How is dialogue between employees and management organised?

   Probe:

   - *Existence of works council and/or trade union*
   - *Forms of interaction between management and employee representatives*
   - *Opportunities for direct interaction between individual employees and management*

5. To what extent does your enterprise provide training opportunities to its employees??

   Probe:

   - *What share of employees take part in training in a given year?*
   - *How many days does a typical employee take part in training?*

[If Q02=yes]

6. What role does the issue of training play in negotiations between management and employee representatives?

Part 3 – Processes and structures

I would now like to get a better understanding how training is organised in your [enterprise/establishment] and the role of employee representation in this.

7. Consider a hypothetical employee in your [enterprise/establishment]. Can you describe how they would access training?

   Prompts:

   - *How does the [enterprise/establishment] assess if the employee needs or wants training?*
   - *How does the employee find out about the different training opportunities on offer?*
   - *Who decides if the employee is being offered training?*
   - *Is training participation voluntary for the employee?*
   - *What role do employee representatives play in this?*

[If Q02=yes]

8. Does your [enterprise/establishment] have a workforce strategy, i.e. a plan for hiring, developing and motivating staff, as well as for utilising their skills?

   Probe:

   - *Are employee representatives involved in the development of the strategy?*
   - *What is their level of involvement (advisory vs. decision-making)?*
   - *Beyond this, are any employees directly involved in the development of the strategy?*

9. What is the role of employee representatives in planning training in your enterprise?

   Probe:

   - *Do trade unions develop their own training offer?*
   - *Are you involved in the development of training programmes provided by the firm?*
   - *Are you involved in the selection of training providers?*
   - *Are you involved in the selection of training participants?*

Part 4 – Reasons for (not) providing training

I would now like to ask some questions around why your [enterprise/establishment] is providing training and what it is hoping to get out of it.

10. In your view, what are the benefits of providing training from the perspective of the enterprise?

    Probe:

    - *Do you think the enterprise benefits from providing training to all employees to an equal extent?*
    - *Do you think the enterprise benefits from all types of training to an equal extent?*

11. In your view, how do employees benefit from the training that is provided?

    Probe:

    - *Are there different benefits for different employees and/ or different types of training?*

12. In your view, would your [enterprise/establishment] benefit from providing more training to its employees? If yes, what are the obstacles to providing more training?

    Prompt:

    - *Limited time for certain staff to participate in training*
    - *Difficult to assess skill needs of different employees*
    - *Difficult to find time to organise training internally*
    - *Training is too expensive*
    - *Difficult to find suitable courses offered by external providers*

Part 5 – The learning environment

I will now ask some questions to understand how other organisational features of your [enterprise/ establishment] help or incentivise employees to learn in their day-to-day work.

13. In your view, what share of employees plan their work autonomously and flexibly?

    Probe:

    - *What share can decide how or when to best fulfil their tasks?*
    - *What share works together in autonomous teams,* i.e. *teams in which members decide on the allocation of tasks and choose a team leader?*

14. In your [enterprise/establishment], what happens if an employee makes a mistake?

    Probe:

    - *Mistakes should be avoided at all costs;*
    - *Mistakes are discussed with the supervisor and corrected;*
    - *Employees are encouraged to find their own way of executing tasks, mistakes happen and are used as an opportunity to learn.*

    Prompt:

    - *Does your approach to dealing with mistakes differ for different groups of employees?*

15. How is the performance of employees assessed?

    Prompt:

    - *Is there a formal performance management system?*
    - *Can you describe it in more details (frequency, format)?*
    - *Does the performance assessment directly affect*
        - *employee level of pay,*
        - *prospects for promotion and/or training opportunities*

16. In what other ways do employees have opportunities to learn in their day-to-day work besides training?

    Prompt:

    - *Frequent assignment of new tasks or formal job-rotation*
    - *Exposure to unfamiliar problems*
    - *Pairing with more experienced employees*
    - *Opportunities for learning by observing colleagues*
    - *Opportunities for information sharing amongst colleagues*

    Probe:

    - *How formalised are these opportunities?*

17. Are there particular obstacles for employees to share knowledge?

    Prompt:

    - *Reluctance to ask advice for fear of approaching unknown colleagues?*
    - *Reluctance to ask advice for fear of showing incompetence?*
    - *Coordination difficulties (*i.e. *to set up meetings)?*
    - *Difficulties to identify which colleagues to approach for advice?*

    Probe:

    - *How common are these obstacles among the employees?*
    - *Are there any actions taken by the [enterprise/establishment] to remedy these obstacles?*

18. How are employees encouraged to keep up to date with new products and services, new processes or other recent developments in the industry?

Part 6 – Close

19. Are there any further comments you would like to make?

Thank the interviewee for their time and briefly discuss next steps.

Getting Skills Right

Training in Enterprises

NEW EVIDENCE FROM 100 CASE STUDIES

Enterprises are a key provider of education and training for adults across OECD countries. Yet, policy-makers lack a detailed understanding of how training in enterprises takes place. This report opens the black box of training and informal learning in enterprises by providing in-depth insights on: i) what training and learning opportunities enterprises provide; ii) why they provide training (or not); and iii) how they make decisions about training. It presents new evidence from 100 qualitative cases studies in five countries: Austria, Estonia, France, Ireland and Italy. The findings will assist governments and social partners in designing and implementing better policies in support of training in enterprises.

Co-funded by the European Union

PRINT ISBN 978-92-64-57875-3
PDF ISBN 978-92-64-81927-6

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