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IMPACT ASSESSMENT REPORT

Accompanying the document

Proposal for a Council Recommendation

on individual learning accounts

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List of acronyms

ACVT	Advisory Committee for Vocational Training
AES	Adult Education Survey
AL	Adult Learning
CPF	Compte Personnel de Formation (French individual learning account)
CSR	Country-specific Recommendation (European Semester)
CVET	Continuing vocational education and training
CVTS	Continuing Vocational Training Survey
DG EMPL	Directorate-General for Employment, Social Affairs and Inclusion
DGVT	Directors General for Vocational Training
EC	European Commission
EMCO	Employment Committee
EENEE	European Expert Network on Economics of Education
EPSR	European Pillar of Social Rights
EQAVET	European Quality Assurance in Vocational Education and Training
EQF	European Qualifications Framework
ESF	European Social Fund
EU	European Union
IA	Impact Assessment
ICT	Information and Communication technologies
ILA	Individual Learning Account
ILO	International Labour Organisation
ISCED	International Standard Classification of Education
ISCO	International Standard Classification of Occupations
JRC	Joint Research Centre
LFS	Labour Force Survey
OECD	Organisation for Economic Co-operation and Development
PC	Public Consultation
PES	Public Employment Services
PIAAC	Programme for the International Assessment of Adult Competencies
SME	Small and medium-sized Enterprise
TEU	Treaty on European Union
TFEU	Treaty on the Functioning of the European Union
VET	Vocational education and training

1. INTRODUCTION: POLITICAL AND LEGAL CONTEXT

On 25 June 2021, the European Council welcomed the EU headline targets of the **European Pillar of Social Rights Action Plan** and the Porto Declaration.¹ Leaders thereby supported the ambition that **at least 60% of all adults should participate in training every year by 2030.**² This contributes to making a reality the right to quality and inclusive education, training and life-long learning, as set out in the **Charter of Fundamental Rights of the European Union** (Article 14: Right to education) and principle 1 of the **European Pillar of Social Rights** on education, training and lifelong learning.³ It also acknowledges the importance of improving the opportunities for developing skills throughout working life to achieve the EU's ambitions for the coming decade: a swift **economic recovery** from the COVID-19 pandemic and a successful digital and green transition.

Notably, the EU will only achieve its **digital transition** if individuals have the skills to take advantage of emerging technologies and jobs. Equally, the **green transition** “*can only succeed if the EU has the skilled workforce it needs to stay competitive*”, as set out in the “Fit for 55 - delivering the EU's 2030 Climate Target on the way to climate neutrality” package.⁴ As labour markets are reshaped by these transitions, the existing support systems for developing skills need to evolve as well to allow all individuals to thrive in the labour markets of the future.

This requires additional investments as well as the engagement of individuals. The **European Council** invited Member States to “*explore possible models for public and private financing of lifelong learning and the development of skills on an individual level*”, and asked the Commission to support Member States in these efforts.⁵ The **revised Employment Guidelines**⁶ call on Member States to strengthen the provisions on individual training entitlements and ensure their transferability during professional transitions including, where appropriate, through individual learning accounts.

Following up on the Mission Letter to Commissioner Schmit and the request to “*explore the idea of individual learning accounts*”⁷, the Commission's Communication on the **European**

¹ [European Council Conclusions](#), 24-25 June 2021. This follows up on the [Porto Declaration](#) of 8 May 2021.

² A discussion of translating this target at EU level into corresponding Member State-specific targets is ongoing within the Employment Committee. The EU level target builds on the objective from the [European Skills Agenda](#) of 1 July 2020 that 50% of EU adults should participate in learning every year by 2025, with differentiated adult learning targets for the low qualified and unemployed and a target of at least 70% of adults having at least basic digital skills. “Learning” and “training” are used interchangeably across these documents and throughout this IA.

³ [Charter of Fundamental Rights of the European Union](#) and [European Pillar of Social Rights](#).

⁴ [COM/2021/550](#), adopted on 17 July 2021.

⁵ [Council Conclusions of 8 June 2020](#) on reskilling and upskilling as a basis for increasing sustainability and employability, in the context of supporting economic recovery and social cohesion.

⁶ [Council Decision \(EU\) 2020/1512](#) of 13 October 2020 on guidelines for the employment policies of the Member States.

⁷ [Mission letter](#) of Nicolas Schmit, Commissioner for Jobs and Social Rights, December 2019.

Skills Agenda⁸ announced its intention to explore individual learning accounts as a tool to support the up- and reskilling of working age adults, complementing other actions targeted at employers and education and training providers.⁹

The **European Parliament** shares the views of the European Council, the Council of the EU and the Commission and called to ensure access to skills development and life-long training opportunities in its Resolution on a European Pillar of Social Rights¹⁰ and its Resolution on a strong social Europe for Just Transitions.¹¹ The Resolution on the European Skills Agenda¹² points out the potential of individual learning accounts as a step towards universal lifelong learning entitlements and a funding mechanism key to the implementation of the Skills Agenda.

The present initiative aims to put forward **recommendations to Member States** to close gaps in existing support systems for training and to increase individuals' motivations and incentives to take up this support and participate in training. Recognising the complex reasons why individuals do not take up training (Section 2.2), the initiative aims to outline measures to integrate financial/demand side with non-financial/supply side support. It thereby aims to support the implementation of existing EU Recommendations on education and training, notably the Council Recommendations on VET, Upskilling Pathways and the validation of non-formal and informal learning.¹³ The initiative does not seek to replace any currently well-working training policies, but to complement them and help close the remaining gaps.

This proposal is related to two other Commission initiatives in preparation. Firstly, the initiative on **Micro-credentials**¹⁴ complements the present initiative by promoting transparency and recognition of short training programmes and therefore incentivising uptake of training. Jointly, both initiatives aim to empower individuals to seek training by addressing challenges on the supply side and demand side. Secondly, the present initiative is also complementary to the initiative on **improving the working conditions in platform work**. The lack of access to training opportunities is an important challenge for platform workers¹⁵, and the present initiative considers concrete policy measures to support the training of individuals that do not depend on the current employer or employment status.

⁸ [European Skills Agenda](#) for sustainable competitiveness, social fairness and resilience of 1 July 2020.

⁹ See Annex 8.1 for an overview of related EU initiatives. ¹⁰ [European Parliament resolution of 19 January 2017](#) on a European Pillar of Social Rights.

¹⁰ [European Parliament resolution of 19 January 2017](#) on a European Pillar of Social Rights.

¹¹ [European Parliament resolution of 17 December 2020](#) on a strong social Europe for Just Transitions.

¹² [European Parliament resolution of 11 February 2021](#) on the European Skills Agenda for sustainable competitiveness, social fairness and resilience.

¹³ [Council Recommendation of 24 November 2020 on vocational education and training \(VET\); Council Recommendation of 19 December 2016 on Upskilling Pathways: New Opportunities for Adults; Council Recommendation of 20 December 2012 on the validation of informal and non-formal learning](#). See Annex 8.1 for an overview of relevant existing EU initiatives.

¹⁴ Included alongside in the [Commission Work Programme for 2021](#). Also see the [Roadmap](#) of the initiative.

¹⁵ [C\(2021\) 1127 final](#).

2. PROBLEM DEFINITION

2.1 What are the problems?

Not enough adults participate in learning. In 2016¹⁶, only 37.4% of adults in the EU participated in learning. This is 22.6 percentage points below the 2030 target of 60% and participation levels fell also short of the 2020 EU-level target¹⁷ in 21 of 27 EU Member States. Progress in increasing participation in adult learning in the EU over the last decade has been limited and uneven across EU Member States. The COVID-19 crisis has had a negative impact on training participation but already in 2019 20 Member States were below the target. The public and targeted consultations on this initiative showed a broad consensus by stakeholders that participation in adult learning is insufficient, even more so in light of the expected acceleration of the green and digital transitions.¹⁸

In addition to being low, participation in adult learning is unequal and strongly depends on the labour market status, employment relationship, company size, educational attainment and the exposure of sectors or occupations to automation. To varying degrees, this problem is present in all Member States and all of them received **country-specific recommendations on skills** in the context of the European Semester in either 2019 or 2020.¹⁹

Across the EU, permanent employees have higher adult learning participation rates (45%) compared to other adults (29%). This pattern can be observed across all Member States, although with different sizes of the gap (Figure 1). 83% of the respondents in the public consultation agreed that a lack of support for workers with no or loose links to an employer is an obstacle to a higher training participation.²⁰

Lower shares of employees in SMEs (42%) and micro-enterprises (36%) participate in adult learning compared to those in large companies (55%). This pattern is visible across all EU Member States. In the public consultation, 83%²¹ of respondents see the lack of capacity by small, medium-sized and micro-enterprises to organise training for their employees as an obstacle.

Adults with lower educational attainment participate less in learning, and participation rates are lower in sectors, occupations and types of employment with higher shares of lower

¹⁶ The most recent year with available data for the 12 months reference period. The EU benchmarking framework for adult learning includes formal and non-formal learning, see Annex 6.1 for details.

¹⁷ The Education and Training 2020 framework foresaw that at least 15% of adults should participate in learning ([Council conclusions of 12 May 2009 on a strategic framework for European cooperation in education and training](#)). The reference period for EU benchmarking of adult learning has since been increased from 4 week to 12 months, which explains the considerably higher 2030 target (see Annex 6 for details).

¹⁸ See Annex 2 for details on the open public and targeted consultations referenced throughout this document.

¹⁹ See Annex 6.3 for details on the inequalities in adult learning participation referenced throughout this Section, and Annex 6.4 for an overview of the country-specific recommendations on skills.

²⁰ Respondents agreed “fully” or “somewhat”. A majority of respondents from all stakeholder groups agreed to this statement, ranging from 72% for businesses to 96% for trade unions. The main stakeholders’ categories for the public consultation (PC) data are *citizens* (78 respondents), *public authorities* (26), *business organisations/businesses* (46), *trade unions* (26) and *NGOs/other respondents* (40).

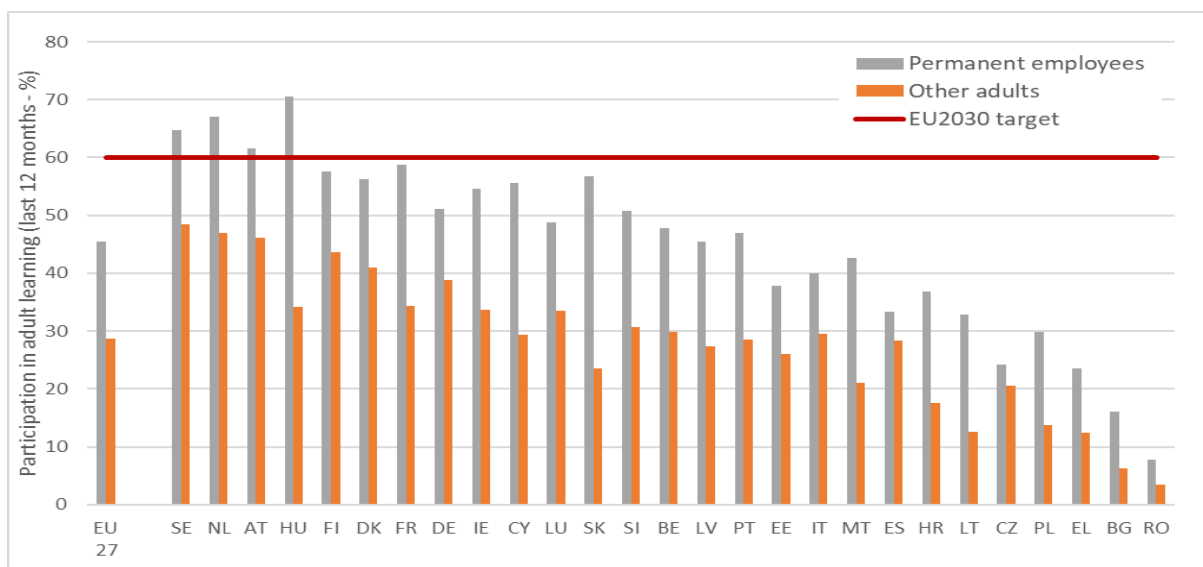
²¹ Ranging from 74% for businesses to 96% for public authorities.

qualified people. However, also within groups of similar educational attainment, the employment status remains a significant determinant of participation.

There are no pronounced gender differences in the participation of adults in learning, but men are somewhat more likely than women to report learning for job-related reasons (see Annex 6.3).

Adults in occupations and sectors with a higher risk of automation participate less in learning. This means that workers in the sectors and occupations where employment shares are predicted to decrease the most until 2030 participate the least in learning. Individuals facing a higher risk of skills obsolescence and unemployment are hence less equipped for these vulnerabilities in the near future.

Figure 1: Participation in adult learning for permanent employees vs. other adults²² in 2016



Source: Adult Education Survey 2016, ages 25-64. Participation figures presented in this IA exclude guided-on-the-job training to match the definition of adult learning used for EU benchmarking. See Annex 6 for details on the definitions used and disaggregated figures.

2.2 What are the problem drivers?

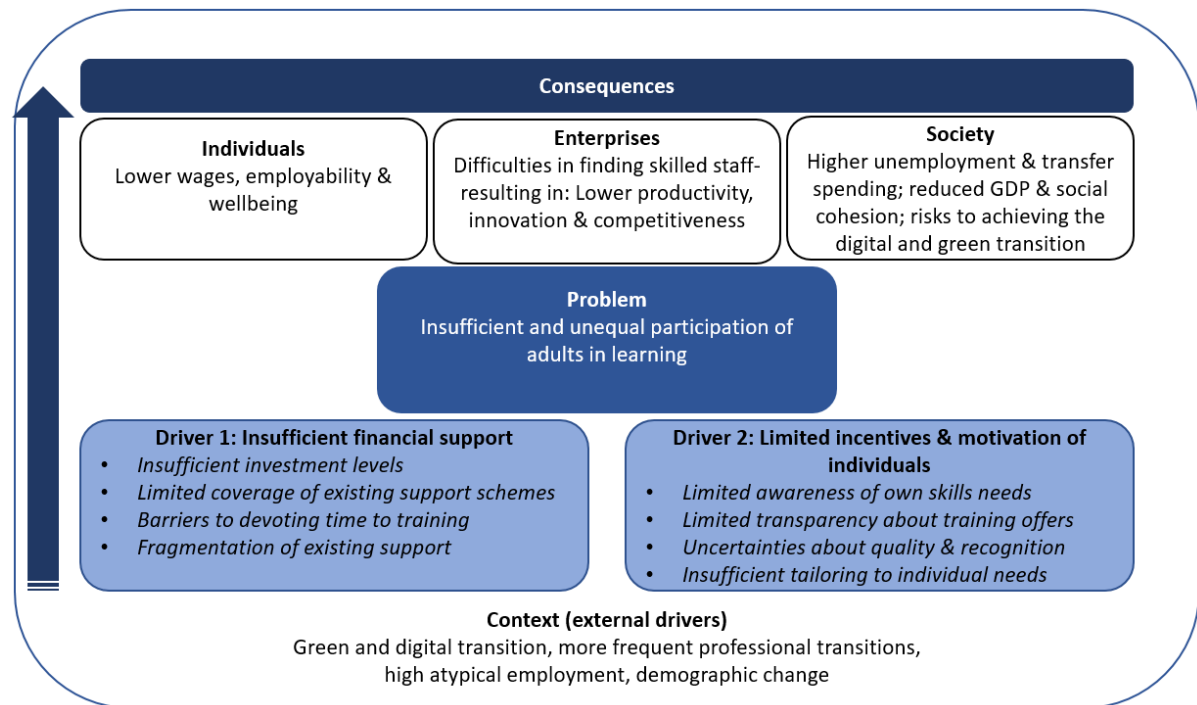
The reasons behind low participation in adult learning in the Member States and Member States' policy responses to the issue are heterogeneous.²³ Yet, there are two broad problem drivers which can be observed across the EU: **insufficient financial support** for training, and **insufficient incentives and motivation of individuals** to take up training that go beyond a lack of financial support. This Section outlines how they limit progress in increasing participation rates of adults in learning and contribute to inequalities in participation between different groups of adults. Additionally, **external drivers**, outside of the scope of this initiative,

²² The category of "other adults" is a heterogeneous group that includes the self and temporarily employed, the unemployed and inactive, with the common feature that they receive less support for learning and participate less in learning (Annex 6).

²³ For a synthesis of country reports on the adult learning systems in all Member States, see European Commission (2019), [Adult Learning policy and provision in the Member States of the EU](#).

amplify the incidence or the adverse consequences of low and unequal participation of adults in learning (Figure 2).

Figure 2: Problem tree



2.2.1 Internal Drivers²⁴

1. Insufficient financial support

The costs of skills development are often concentrated on a specific actor, while the benefits (e.g. in the form of job progression, higher wages or productivity or a successful transition to new employment) only become apparent later and are typically shared among the individual, employers and society at large.²⁵ This results in **insufficient investment overall**, a **limited coverage of existing support schemes** in terms of groups of adults and types of training, **barriers to devoting time to training** and the **fragmentation** of the existing support schemes.

Insufficient investment levels in adult learning: According to the best available evidence, the overall level of investments (public and private) in adult learning in the EU is around 1.7% of GDP²⁶ with the largest share contributed by employers (1% of GDP), followed by public authorities (0.5% of GDP) and the remaining share contributed by individuals themselves (0.2% of GDP). The shares of overall investments in Member States range from 0.5% of GDP in RO to almost 2.5% of GDP in SE and FI. The **public share of investments (0.5% of GDP)**

²⁴ See Annex 7 for more detailed evidence on the problem drivers introduced in this Section.

²⁵ See for instance Münich and Psacharopoulos (2018): [Education externalities: what they are and what we know](#), European Expert Network on Economics of Education (EENEE) Analytical report No. 34.

²⁶ Annex 7.1 explains in more details how these estimates were made in the absence of coherent measurement of adult learning expenditure in national statistical systems.

is **relatively low** when compared to the 4.7% of GDP that public authorities in the Member States invest on average in education.²⁷ While there has been rapid progress in increasing educational attainments over the recent decade (notably by reducing early school leaving and increasing the share of adults with tertiary education), there has been no corresponding increase in the public commitment to support the continuing skills development of adults after they have left initial education.²⁸ Also 23 of 27 national adult learning experts who have been consulted for the purpose of this impact assessment²⁹ consider the current levels of financing in their Member State as insufficient.

There is a **positive correlation between the participation in adult learning and the estimated available funding in relation to GDP**. The six Member States that scored above the EU participation targets for 2020 (SE, FI, DK, NL, EE and LU) spend on average 2.0% of GDP on adult learning, compared to an average of 1.3% of GDP for the other 21 Member States. Member States with higher levels of investments in adult learning also show smaller differences in participation between permanent employees and other adults (Annex 7.1), indicating that sufficient investments also ensure a more equal access to learning for all adults. This suggests that raising the level of participation in adult learning will also require increasing the level of investment in adult learning.

Current investments in adult learning are low also when compared against available estimates of their social and economic benefits. Most evidence in the academic literature suggests that the benefits of additional investments (such as wage and productivity gains) would outweigh their costs at the current participation levels.³⁰ However, even where countries have earmarked funds for adult learning, they are not always underpinned by sustainable financing sources, limiting their impact and leading to insufficient funding during recessions, when it is most needed.³¹

Limited coverage of existing support schemes in terms of the groups of adults and types of training that are supported: Survey data and the public consultation point to the costs of training as a key barrier for individuals³² leading to low and unequal adult learning participation (Section 2.1). As currently employers sponsor 88% of job-related non-formal training³³, adults who would like to learn more and are not in permanent employment report costs as a barrier more often than those in permanent employment (31% vs. 22%). Among employees, those

²⁷ As measured by the Eurostat variable [gov_10a_exp](#).

²⁸ European Commission (2020): [Education and Training Monitor 2020](#).

²⁹ See Annex 1 for a presentation of this network, which is one of the sources used throughout this IA.

³⁰ See Annex 10 for a review of evidence on the benefits of adult learning.

³¹ Baiocco (2020), [The state of play of evidence about the conditions under which individual-oriented instruments for incentivising adult participation in learning are effective](#). EENEE Ad-hoc Question n°4-2019; Brunello and Bertoni (2021), [Adult learning during recessions in Europe](#). EENEE Policy Brief 1/2021.

³² 25.5% of adults who wanted to learn more mentioned costs as a barrier in the 2016 AES, increasing to 32.2% for adults who did not participate during the past year. 89% of respondents to the PC agreed fully or somewhat that the direct costs of training (for course fees etc.) prevent individuals from accessing training.

³³ Such training constitutes the majority of adult learning, see Annex 6 for details on the definition of AL.

employed in SMEs receive less support for training than those in large companies³⁴, mirroring the pattern of inequality in participation levels documented in the previous Section.

Another dimension of coverage gaps concerns the **types of training undertaken**. Any current employer is unlikely to have an incentive to provide support for training that will help a worker to change company or sector. However, such training is important to prevent skills gaps in light of the labour market transformations ahead. This results in a risk of underinvestment of employers in certain types of trainings and in particular for non-company-specific skills³⁵, including transversal skills which are increasing in importance on the labour market.³⁶ Only in three Member States (AT, EE, IE), the available support for professional transitions was assessed as adequate by national adult learning experts. In the public consultation, 88% of respondents agreed that additional policy efforts are needed to support training in transversal skills, and 93% agreed with respect to digital skills.³⁷

Existing public support schemes in the Member States are often insufficient to close these coverage gaps. Income tax incentives for training exist in a majority of Member States, but require upfront investment by individuals and a sufficiently high income. Schemes providing individuals with training entitlements upfront such as training voucher schemes could help and exist in 21 Member States, however often with small target groups³⁸ such as the unemployed and hence not supporting a broader range of “preventive” trainings for transversal skills or professional transitions.

Barriers to devoting time to training, related to a lack of income to cover the costs of living during training periods: Lack of time for training also limits participation.³⁹ Again, the employer plays an important role in providing support by giving the opportunity to participate in training during working hours, or allowing individuals to make use of existing paid training leave provisions. Paid training leave allows workers to keep their salary or a replacement income during periods of training that may range from a few days to several months. Related provisions of some sort already exist in 24 Member States, of which 12 are bound by their

³⁴ See for instance Cedefop (2019), and Eurofound and Cedefop (2020), [ECS 2019: Workplace practices unlocking employee potential](#).

³⁵ See Leuven (2005), [The economics of private sector training: A survey of the literature](#), Journal of Economic Surveys. According to the 2015 CVTS, only 13% of training by employers is focused on more transversal skills such as general IT skills, and less than 1% on numeracy and literacy skills.

³⁶ See European Commission (2020), [Facing the Digital Transformation: are Digital Skills Enough?](#)

³⁷ Ranging from 78% (transversal skills) and 85% (digital skills) of businesses to 98% of NGOs and others.

³⁸ See the discussion of existing training vouchers in the Member States in Annex 8.2. Also the OECD concludes that “in most cases, single adult learning reforms reached less than 1% of the adult population”. See OECD (2020), [Increasing Adult Learning Participation- Learning from Successful Reforms](#).

³⁹ 36.6% of adults who wanted to learn more mentioned their schedule as a barrier in the 2016 AES, increasing to 40.7% for adults who did not participate during the past year. 82% of respondents to the public consultation agreed fully or somewhat that the indirect costs of training (loss of income during training etc.) prevent individuals from accessing training.

ratification of the ILO Paid Educational Leave Convention.⁴⁰ However, **access to paid training leave is often restricted** based on features of the employment relationship. Take-up of existing provisions is usually below 1% of the employed population, driven by restrictive eligibility criteria (e.g. excluding employees without permanent contracts), a lack of information about available training opportunities and a lack of trust in the quality of training among employees and employers. Employees in SMEs are also at a disadvantage since smaller enterprises often face greater difficulties in handling temporary absence of staff.⁴¹ Moreover, the self-employed (including the growing and diverse groups of the “dependent self-employed”) are usually excluded entirely from schemes that provide income support during periods of training.⁴²

Fragmentation of existing support systems: The **fragmentation of existing support systems**⁴³ further contributes to gaps in financial support. One example of fragmentation are **weak links between sectoral support systems**. A worker may contribute to a sectoral training fund for most of his/her working life, but cannot use it to train for a professional transition and loses access to such entitlement the moment the worker changes to a different sector.⁴⁴ Fragmentation can also create or perpetuate support gaps if responsibilities for support are strictly divided by target group and the **coordination between different support schemes does not keep up with labour market changes**.⁴⁵ An example are platform workers who often neither benefit from the training support offers for employees nor from those for the unemployed. Fragmentation can also **prevent individuals from making use of available support**, as individuals need to be well informed about the eligibility conditions to be able to benefit from it when support is linked to the current employment or income status. 87% of

⁴⁰ As of 1st of February 2020, according to a preliminary version of the updated [“Financing Adult Learning”](#) database by Cedefop (update forthcoming) presented in Annex 8.2. The last ratification of the ILO’s [Paid Educational Leave Convention](#) by a Member State took place in 1993.

⁴¹ Cedefop (2012), [Training leave. Policies and practice in Europe](#).

⁴² For an exception, see the recently reformed [Finnish Adult Education Allowance](#), which is open to the self-employed. See the mapping of recent reforms in the Member States in Annex 8.2.

⁴³ Reducing fragmentation does not necessarily mean centralising of funding: for instance, although most funding for the French “Compte personnel de formation” comes from a central payroll levy, the scheme allows individuals to receive training entitlements from a large number of different national and regional stakeholders and employers. See Annex 14 for details.

⁴⁴ For instance, a [review of sectoral training funds](#) by the Dutch Ministry of Social Affairs found that only in 4 out of the 180 training funds, activities are undertaken to promote inter-sectoral mobility of workers.

⁴⁵ This is a particular point of attention since a 2019 review concludes that “*adult learning does often not align clearly with the remit of a particular Ministry or Government department at national level*” - see European Commission (2019), [Adult learning policy and provision in the member states of the EU: a synthesis of reports by country experts](#). Reducing fragmentation does not necessarily require centralisation of funding: for instance, the French CPF allows individuals to receive training entitlements from a large number of different national and regional stakeholders and employers, eliminating fragmentation at the “front end”/ from the perspective of individuals while maintaining flexibility at the “back end” (Annex 14).

respondents in the public consultation highlight that a lack of awareness of available financial support for training hampers participation.⁴⁶

2. Limited incentives and motivation of individuals to participate in training

80% of adults who did not participate in learning during the previous year say that they did not want to participate,⁴⁷ showing that financial support is necessary but not sufficient. This is not due to a lack of appreciation of adult learning, as 96% of adults agree that learning throughout life is important.⁴⁸ The reasons why this does not always translate into action are most notably a **limited awareness of one's own skills needs, limited transparency about available training offers, uncertainty about the quality of training provision and recognition of training outcomes in the labour market and an insufficient tailoring of training offers to individual needs.**

Limited awareness of own skills needs by individuals: There is a large divide between employers' and employees' views on the adequacy of skills: Only 16% of employers report that their workers have all the required skills, while 76% of adults do not think that they lack general skills and 71% do not think they lack technical skills.⁴⁹ The literature suggests that the truth may lie somewhere in the middle as employees may be reluctant to acknowledge missing skills while employer reports must be assessed in light of the wages and working conditions offered.⁵⁰

Limited transparency about available training offers: The advent of digital and blended learning opportunities creates an increasing number of potentially relevant training opportunities.⁵¹ Since employers play an important role also for signalling skills needs and suggesting concrete training programmes, navigating the training offer is particularly difficult for individuals or trainings without a strong link to a single employer. 89% of respondents⁵² to the public consultation pointed to limited transparency of information on training opportunities as a reason preventing individuals to train, consistent with the 90% of respondents in the

⁴⁶ Ranging from 85% of citizens and NGO and other to 92% of public authorities. The case studies in Annex 13 point to Greece as an example where fragmentation of support poses a challenge for individuals, with 20 training voucher schemes with distinct target groups and eligibility conditions implemented since 2015.

⁴⁷ Data are taken from the 2016 AES. The remaining 20% respond that they „wanted, but encountered difficulties“. This is confirmed by PIAAC data: The OECD places 50% of adults into the group of “disengaged learners” who lack willingness or the opportunity to engage in available learning opportunities. See OECD (2021), [Skills Outlook- Learning for Life. Chapter 4: Promoting interest and participation in adult learning.](#)

⁴⁸ Cedefop (2020), [Perceptions on adult learning and continuing vocational education and training in Europe. Second Opinion survey – Volume 1.](#) Henceforth referred to as “Cedefop AL perceptions survey”.

⁴⁹ See Eurofound and Cedefop (2020), [ECS 2019- Workplace practices unlocking employee potential](#) and [Cedefop AL perceptions survey](#). Differences across different groups of adults are small, see Annex 6.2.

⁵⁰ Cedefop (2021), [Understanding technological change and skill needs: skills surveys and skills forecasting. Cedefop practical guide 1](#) and Brunello and Wruuck (2019), [Skill shortages and skill mismatch in Europe.](#)

⁵¹ The parallel initiative on an EU approach to Micro-credentials introduced in Section 1 complements the present initiative from the “supply side” by developing the transparency and quality of Micro-credentials.

⁵² Ranging from 85% of NGOs and other respondents to 96% of public authorities.

Cedefop adult learning perceptions survey agreeing that more information and guidance would encourage participation in learning.

According to the adult learning expert network, 20 Member States already have legally mandated **career guidance offers** in place, which can help individuals with increasing the awareness of skills needs and training opportunities. However, they **often have low effective outreach**, as measured by the percentage of adults who have received career guidance in the past year in the AES.⁵³ Most national public authorities are already conducting awareness-raising campaign on existing adult learning opportunities.⁵⁴ Survey respondents identify the internet as most frequently used source of information on training opportunities. This points to the potential of user-friendly digital **registries of training opportunities** that are recognised on the basis of their quality and labour market relevance in the provision of career guidance services more broadly understood. However, such registries only exist in 12 Member States, and are less likely to exist in Member States with lower adult learning participation rates.⁵⁵

Uncertainties about quality and recognition of a training programme: To engage in training, individuals need to believe that it will pay off for them personally, but they need to make choices among a large number of training offers based on **imperfect information and with substantial uncertainty about individual returns**. The lack of quality assurance has been pinpointed as a reason for low participation in recent national initiatives.⁵⁶ Almost a quarter of respondents across the EU (24%) do not have sufficient confidence in the overall quality of adult learning in their country, and 87% of respondents are of the opinion that increased quality standards would encourage participation in work-related training.⁵⁷ 80% of respondents⁵⁸ to the public consultation agreed that uncertainties about the quality of training prevent individuals from accessing training. Although a number of international quality labels exist, the quality assurance reports underlying the certification are usually non-public, leading to little

⁵³ Career guidance is strongly positively correlated with AL participation at Member State level (Annex 6.2). See European Commission (2021), [Adult Education and Training in Europe- Building inclusive pathways to skills and qualification](#), for a mapping of guidance services provided by PES showing that in only around half of the countries/regions, all adults are able to benefit from them regardless of employment status.

⁵⁴ All Member States except CZ, EL, LT, RO between 2015-2020 according to European Commission (2021), [Adult Education and Training in Europe- Building inclusive pathways to skills and qualification](#).

⁵⁵ Based on the reports from adult learning experts, such databases already exist in 6 of the 9 Member States with the highest adult learning participation rates (AT, DE, DK, FI, FR, SE), as compared to 3 of the 9 for the Member States with medium (BE, LU, SI) and low (BG, ES, PL) participation rates (Annex 8.2). See European Commission (2021), [Adult Education and Training in Europe- Building inclusive pathways to skills and qualification](#), for a detailed discussion of such databases, concluding that their availability has increased since 2015 but that many are not yet tailored specifically to the needs of adult learners.

⁵⁶ See for instance the case study on voucher schemes in Greece in Annex 13.

⁵⁷ [Cedefop AL perceptions survey](#). AL participation is significantly negatively correlated with the share of respondents who rate the quality of AL in their country as bad. AL experts confirm the need for significant improvements in quality assurance mechanisms, in particular for non-formal programmes and for Member States with low adult learning participation levels (Annex 8.2).

⁵⁸ Ranging from 78% of NGOs and others to 81% of public authorities and trade unions. Agreement was somewhat higher among respondents from Member States with low (81%) and medium (79%) as compared to those with relatively high adult learning participation (63%).

visibility as to what the labels actually represent.⁵⁹ Moreover, there is a risk that the coexistence of multiple quality labels hampers their ability to reduce uncertainties about quality and recognition of training programmes.⁶⁰

The currently **high uncertainty about the recognition of learning outcomes further reduces incentives for training**. If learners cannot evidence the value of newly acquired skills and competences, they may not be able to reap the full benefits of training (i.e. negotiate wage increases or improve job content and prospects). The 2020 evaluation of the Council Recommendation on validation of informal and non-formal learning concluded that while there has been some progress towards providing more validation opportunities in the Member States, strengthening support to individuals is necessary to promote the take-up of these opportunities.⁶¹ Historical evidence suggests that in particular in times of rapidly changing skill requirements, a lack of recognition of skills reduces the bargaining power of workers and reduces wages.⁶² The existence of digital **registries of recognised training opportunities** could support the standardisation and recognition of skills, but as mentioned above, such registries do not exist in most Member States.

Insufficient tailoring of training offers to individual needs: It reduces the motivation of individuals to take up training in view of the **heterogeneous needs of adult learners** in terms of the timing and the delivery mode of training. Related barriers to training participation are among the most frequently mentioned in both the AES and the Cedefop adult learning perceptions survey⁶³, and managers in more than 40% of enterprises report that employees have no or a small influence on management decisions concerning training and skills development.⁶⁴ 77% of respondents⁶⁵ to the public consultation agreed that insufficient tailoring of available training to individual needs prevents individuals from accessing training, and 87% of respondents to the Cedefop adult learning perceptions survey reported that better adaptability to individual learning needs would encourage participation in work-related training. Adult learning experts indicate that supporting individuals directly has been recognised as a policy

⁵⁹ See the background paper of the [EQAVET Peer Learning Activity on Quality Assurance in continuing vocational education and training \(CVET\)](#) on 27-28 April 2021.

⁶⁰ See OECD (2021), [Improving the Quality of Non-Formal Adult Learning- Learning from European Best Practices on Quality Assurance](#).

⁶¹ See the [Council Recommendation of 20 December 2012 on the validation of informal and non-formal learning](#) and its [2020 evaluation \(SWD \(2020\) 121 final\)](#).

⁶² See Bessen (2015), [Learning by Doing- The Real Connection between Innovation, Wages, and Wealth](#).

⁶³ In the 2016 AES, 36% of respondents who wanted to participate more in learning mentioned schedule as a factor preventing them from participating, 32% family responsibilities, 16% a lack of suitable training activities and 13% distance to training activities. In the [Cedefop AL perceptions survey](#), 32% of non-participants stated participation would have been difficult to fit with other commitments, and 13% found no suitable activity. Inflexible scheduling of training activities magnifies the time barriers discussed under driver 1.

⁶⁴ Cedefop and Eurofound (2019), [ECS 2019- Workplace practices unlocking employee potential](#).

⁶⁵ Ranging from 70% of businesses to 88% of public authorities and trade unions and from 63% of respondents from countries with relatively high adult learning participation to 81% from countries with low participation.

priority by two thirds of Member States in the top tier of adult learning participation, as compared to one third of Member States in the bottom tier (Annex 8.2).

2.2.2 External Drivers

In addition, a number of external drivers are relevant insofar as they increase the importance of training or risk reducing its provision in the absence of a policy response.

Technological change: It makes some jobs increasingly susceptible to substitution by digitalisation and automation while at the same time creating new jobs. Estimates suggest that around 9% to 14% of jobs in the EU face a high risk of automation, and that a further 32% to 40% of jobs are likely to be transformed by automation, entailing corresponding changes in their skill requirements.⁶⁶ Changes in the technology used at work are already felt by 43% of adult employees in Europe according to the European Skills and Jobs Survey.⁶⁷ This indicates that many workers may require training to perform job tasks which are potentially very different from those they have previously undertaken. On the upside, the digital transformation also creates many **new online learning opportunities for adults** that can reduce cost and distance barriers and allow for better targeting of learning to individual needs, further accelerated by COVID-19 pandemic.⁶⁸ However, the present lack of certainty about quality and recognition prevents adults from fully seizing these opportunities (Section 2.2).

The green transition: It is driving a profound transformation of labour markets, not only displacing workers but also by changing the task requirements within occupations and creating new jobs that require new skills.⁶⁹ Substantial investments are needed to provide opportunities for acquiring new skills to those who are at risk of losing their jobs in high-emissions industries.⁷⁰ Skills shortages already constrain the transition to a greener economy⁷¹, highlighting the importance of skills investment also to reach the ambitious EU emission reduction targets.

Demographic ageing: Europe has an ageing and shrinking labour force. With people living longer, there is an increasing need for people to update their skills. Ageing is also expected to

⁶⁶ Pouliakas (2018), [Automation risk in the EU labour market: a skill-needs approach](#); OECD (2018), [Automation, skills use and training](#).

⁶⁷ Cedefop (2018), [Insights into skill shortages and skill mismatch: Learning from Cedefop's European skills and jobs survey](#).

⁶⁸ OECD (2021), [Adult learning and COVID-19: How much informal and non-formal learning are workers missing?](#) Also see the Education and Training Monitor 2021 (*forthcoming*) for evidence that participation of adults in online training has increased sharply in 2020.

⁶⁹ See for example Cedefop (2019), [Skills for Green Jobs: 2018 update. European synthesis report](#) and ILO (2018), [World Employment and Social Outlook 2018: Greening with jobs](#).

⁷⁰ European Commission (2020), [Employment and social developments in Europe- Leaving no one behind and striving for more : fairness and solidarity in the European social market economy](#).

⁷¹ ILO (2019), [Skills for a greener future: A global view based on 32 country studies](#).

further increase old-age dependency ratios.⁷² This suggests that there will be an increased demand to raise employment rates of older workers as well as productivity of employed adults across the board, whereby training will play a key role. At the same time, older people participate significantly less in adult learning than younger workers (see Annex 6.3), which highlights the urgency of creating learning opportunities that are also tailored to the diverse needs of older learners.

High atypical employment and more frequent labour market transitions: The share of workers in atypical forms of work is high and the frequency of professional transitions has increased. Around 4 in 10 adults are in atypical forms of work (defined as not having full-time permanent employment contracts). However, most groups of atypical workers participate less in learning (cf. Section 2.1). While the share of atypical workers has remained rather stable in recent years (cf. Section 2.4) the number of professional transitions from one labour market status to another throughout one's working life has increased considerably.⁷³ This increases the need for training to adjust to new job tasks; it is, however, less likely to be supported by the current employer who has fewer incentives to support such transitions into new jobs (cf. Section 2.1). A high share of atypical forms of work and an increasing frequency of labour market transitions both risk reducing the coverage of employer support for training on the labour market: individuals may not have a single employer to turn to for support, or this employer may be more reluctant to grant it for fear of not being able to capture the returns of their investment once their employee moves on.

2.3 What are the consequences?

The low and unequal participation in adult learning across the EU reduces prosperity and produces inequalities between those who benefit from learning and those who do not. Beyond that, socio-economic consequences are also felt by enterprises and the society as a whole (see Annex 10 for a literature review, and Section 6 for quantitative estimates).

2.3.1 For individuals

Many immediate consequences of low and uneven participation in training are observed at the individual level. Low-skilled individuals are more likely to face **unemployment and exclusion from the labour market**.⁷⁴ These consequences are particularly pertinent given that workers facing the highest risks of displacement in the future are also the ones that currently participate less in learning (Section 2.1). For those in employment, less training means **foregoing wage**

⁷² Defined as the ratio between the number of persons aged 65 and over and the number of persons aged between 15 and 64. The value is expressed per 100 persons of working age (15-64), and has already increased from 26 to 32 between 2010 and 2021. See Eurostat, [old-age-dependency ratio](#).

⁷³ OECD Employment Outlook (2019), [The Future of Work](#), Figure 3.1: Job tenure of workers decreased by on average 7.9 percent between 2006 and 2017 for the 22 EU Member States included in the analysis once accounting for population ageing, and it decreased in all EU Member States except EE, LV and ES. The largest declines in tenure have occurred for low-educated workers.

⁷⁴ The skill intensity of EU labour markets is reflected in the steep gradient of EU-27 unemployment rates by educational attainment (4.8% for those with tertiary education vs. 13.4% for those with at most lower secondary education for 2020) and the even steeper gradient for employment rates (85.5% vs. 55.6%). See Eurostat variables [UNE_EDUC_A](#) and [LFSA_ERGAED](#).

increases.⁷⁵ In terms of risks to well-being more broadly, the literature points to **negative associations with personal and job satisfaction, health and social inclusion** for individuals that participate less in training.⁷⁶

2.3.2 For enterprises

73% of EU employers considered difficulties in finding workers with the right skills as an obstacle to investment in 2020.⁷⁷ Skills shortages **reduce productivity and enterprises' capacity to adopt new technologies**⁷⁸, which is particularly costly in the face of the digital and green transitions. There is also evidence that companies who fail to invest sufficiently in the skills of their workforce are more likely to go out of business.⁷⁹

These consequences are **particularly relevant for SMEs and micro-enterprises**, whose staff participate in training comparatively less than that of larger enterprises. This reduces their opportunities to develop personally and professionally and impacts on the attractiveness of SMEs as a workplace. It also reduces the productivity levels of the SME, increasing the competitiveness gap with larger companies.⁸⁰

2.3.3 For society as a whole

At a macroeconomic level, income and productivity losses by individuals and enterprises and a less efficient reallocation of labour add up to **lower GDP levels (ceteris paribus) and higher unemployment** with associated transfer spending.⁸¹ Skills are also associated with a range of **non-monetary externalities** concerning civic participation and social cohesion, and there is growing evidence to suggest that the relationship is causal.⁸²

Taken together, this suggests that low and unequal levels of participation in adult learning make the EU **less resilient in the face of economic downturns and structural change**. This is of particular concern in light of the rapid digital and green transition as both transitions will require both an openness to *adapt to change* and an ability to *shape the change*, for instance in the form of innovations that advance the EU on the path to carbon neutrality.

⁷⁵ Algan et al. (2021), [Boosting Social and Economic Resilience in Europe by Investing in Education](#).

⁷⁶ Feinstein and Hammond (2007), [The contribution of adult learning to health and social capital](#). Oxford Review of Education.

⁷⁷ European Investment Bank (2021), [Investment Report 2020/2021- Building a smart and green Europe in the COVID-19 era](#). This makes skills shortages the second most frequently mentioned constraint, behind “Uncertainty about the future” (81%) but ahead of “Business regulations and taxation” (65%) and 6 other potential barriers.

⁷⁸ See the [Algan et al. \(2021\)](#) review paper and Cedefop (2012), [Learning and innovation in enterprises](#).

⁷⁹ Collier et al. (2005), [Training and Establishment Survival](#). Scottish Journal of Political Economy.

⁸⁰ OECD (2013), [Skills Development and Training in SMEs](#).

⁸¹ See Cedefop (2017), [Investing in skills pays off](#), and the estimates introduced in Section 6.

⁸² See Ruhose et al. (2019): [The benefits of adult learning: Work-related training, social capital, and earnings](#). Economics of Education Review and the [Algan et al. \(2021\)](#) review paper.

2.4 How will the problem evolve?⁸³

Extrapolating recent trends, **adult learning participation in the EU could increase from 37.4% in 2016 to 48.6% in 2030, but would stay below the EU-level target of 60%.** Large differences in participation rates between Member States are likely to persist, reflecting differences in investments in and policy attention for adult learning. Thus, existing **support gaps will not disappear without further policy action.** External drivers like the green transition, digital transformation and demographic trends will persist and even partly accelerate in light of the ambition to reach climate neutrality by 2050.

At the same time, **labour market transitions from one job or employment status to another are expected to become more frequent.** This is expected to result both from increasing life expectancy and extrapolating the significant decrease in job tenure observed across EU Member States over recent years (Section 2.2.2). While there is no compelling evidence that atypical forms of work will increase further overall⁸⁴, some forms of it such as platform work are expected to grow.⁸⁵ These are typically associated with fewer benefits in terms of support to training.

There is broad recognition at EU and Member State levels of the importance to increase adult participation in learning in order to increase the resilience of labour markets and ease necessary professional transitions (Section 1). The measures adopted to tackle the impact of the COVID-19 pandemic, notably Next Generation EU, could provide a **strong impetus for reform and some Member States have included reforms of adult learning policies in their recovery plans** (see Annex 8.1). However, pressures on public budgets in the medium-term increase the importance to devise sustainable funding arrangements through a comprehensive policy framework.

3. WHY SHOULD THE EU ACT?

3.1 Legal basis

The envisaged legal basis is **Article 292 combined with Article 149 TFEU.**⁸⁶ Article 149 allows for **non-binding measures** in the field of employment aimed at providing comparative analysis and advice as well as promoting innovative approaches. It contributes to the implementation of Article 145 TFEU, according to which, “*Member States and the Union shall (...) work towards developing a coordinated strategy for employment and particularly for promoting a skilled, trained and adaptable workforce and labour markets responsive to economic change*”.

⁸³ Also see Section 5.1 for a complementary description of policy efforts under the baseline scenario, and Annex 8.3 for details on the estimation of AL participation in 2030 under the baseline scenario.

⁸⁴ The [Impact Assessment for the Council Recommendation on Access to Social Protection for Workers and the Self-employed](#) estimated that the share of traditional non-standard work in employment could rise from 25% in 2016 to 29% by 2030, while self-employed would remain broadly constant at 14%. However, the share of atypical forms of work among those aged 25-64 decreased slightly from 38.5% to 36.6% between 2016 and 2020 according to data from the Labour Force Survey.

⁸⁵ See the [discussion paper](#) on the recent Commission consultation on the working conditions in platform work.

⁸⁶ Article 149 TFEU could serve as the substantive legal basis and Article 292 TFEU as basis for a Council Recommendation, since it allows the Council to adopt recommendations on a proposal from the Commission.

Article 166 TFEU specifies that Union action shall aim to “*facilitate adaptation to industrial changes, in particular through vocational training and retraining*”. However, the ultimate and predominant purpose of the initiative is to support Member States in reaching the objectives of employment policy (cf. also Section 4), leading to Article 149 TFEU as the legal basis (next to Article 292). Article 153 TFEU, which would allow for measures to “*support and complement the Member States [on] working conditions*”, was also discarded. Its relevant paragraph 1) b. on working conditions would only cover workers whilst leaving out self-employed, unemployed, and inactive people. In light of the problem analysis, it was essential to choose a legal basis which could cover the entire population on the labour market.

3.2 Subsidiarity: Necessity and added value of EU action

The problems described above are **widespread across EU Member States** and have similar underlying causes, as shown in Section 2. The structural transformation of labour markets in light of the digital and green transitions and an ageing European population greatly increase the stakes for all Member States. An EU initiative in this area is warranted by the EU’s interest in having a skilled labour force as reflected in its objectives (Section 4.1). This is particularly important for **upward socio-economic convergence** across the economic and monetary union⁸⁷ and the EU in general in a context of rapid shifts in skills demand within and across sectors. Increasing access to training opportunities can also improve the resilience of labour markets to shocks such as the one induced by COVID-19 pandemic.

While Member States can take measures to improve the situation at national level (see baseline scenario in Section 5.1), an EU initiative can **support and accelerate national efforts** by sharing experiences and promoting innovative approaches (see Section 6.2 for a discussion of the available instruments). It can also help set expectations and create trust among Member States and stakeholders for an **increase in public and private investment in skills**, sending the message that all of them will contribute to, and benefit from, the shared asset of a skilled EU labour force. 84% of respondents⁸⁸ to the public consultation agreed that the initiative could also lead to a more efficient use of EU funds for skills development.

While the main EU added value of the initiative is to support Member State reforms to reach EU level objectives in the field of employment policy and the European Pillar of Social Rights, there are a number of additional dimensions of EU added value: The initiative can **facilitate access to training for the growing number of EU citizens who reside in another EU Member State**, contributing to labour mobility within the EU and a further integration of the single market.⁸⁹ The initiative can also contribute to **creating a level playing field for companies** operating on the single market by enhancing the quality and transparency of

⁸⁷ This was highlighted in the PC on establishing a European Pillar of Social Rights, [SWD\(2017\) 206 final](#).

⁸⁸ Ranging from 70% for businesses to 93% for NGOs and others. Agreement was 13 ppt higher among respondents from MS with low (90%) compared to MS with relatively high (77%) AL participation rates.

⁸⁹ See European Commission (2020), [Annual report on intra-EU labour mobility](#), for trends in EU labour mobility and Dorn and Zweigmüller (2021), [Migration and Labor Market Integration in Europe](#) (Journal of Economic Perspectives) for an argument that missing language skills limit intra-EU labour mobility.

training markets across the EU. 75% of the public consultation respondents⁹⁰ agreed that the initiative can improve the portability and recognition of training outcomes across Member States, and 71%⁹¹ agreed it can increase the transparency of national training markets for companies operating on the single market.

Article 149 TFEU precludes measures that would lead to a harmonisation of the laws and regulations of the Member States in this area, respecting subsidiarity by allowing Member States to **adapt the measures taken to national circumstances**.

4. OBJECTIVES: WHAT IS TO BE ACHIEVED?

4.1 General objectives

The general objective of the initiative is to support Member States with reforms to **empower adults to participate in training in order to increase participation rates and reduce skills gaps**. The initiative thereby contributes to the EU's objective to promote a **highly competitive social market economy, aiming at full employment and social progress** (Article 3 TEU).

The initiative also aims to contribute to the implementation of several individual social rights that have been derived from this general objective in the context of the **European Pillar of Social Rights**: the right to “*quality and inclusive education, training and life-long learning*” (first principle), the right to “*active support to employment*” (fourth principle), and the right to training “*regardless of the type and duration of the employment relationship*” (fifth principle). Alongside the other initiatives from the European Skills Agenda, the initiative aims to support Member States in making progress towards the EU-level target of 60% adult participation in training every year by 2030. This target has been set by the **European Pillar Social Rights Action Plan** and endorsed by EU leaders in the **Porto Declaration** and in the European Council conclusions of June 2021 (see Section 1).

Significant progress on these dimensions will be crucial in order to support the **just transition to a carbon neutral Europe**, to equip citizens with the skills they need to **grasp the opportunities resulting from the digital transition**, and to **adapt to change and uncertainties** such as those ensuing from the COVID-19 pandemic.

4.2 Specific objectives

To reach the general objective, the specific objectives of the initiative are to **support Member State reforms** to:

- **Close gaps in existing support systems** so that all adults have access to support for training, including for professional transitions and irrespective of their labour force or professional status.⁹²
- **Increase the incentives and motivation** of individuals to seek training.

⁹⁰ Ranging from 38% for trade unions to 93% for NGOs and others, with a majority disagreeing only among trade union respondents.

⁹¹ Ranging from 54% for businesses to 91% for citizens.

⁹² Hence including the employed independent of their contractual status, the self-employed, the unemployed and people outside the labour force.

5. WHAT ARE THE AVAILABLE POLICY MEASURES?

5.1 What is the baseline from which options are assessed?

Under the baseline scenario, **adult learning will continue to be an important strand of the EU's policy work and funding**. The most important recent Skills Agenda initiatives include the 2020 Council Recommendation on Vocational Education and Training and the Pact for Skills⁹³ launched in November 2020. Several of the Recovery and Resilience Plans to address the socio-economic impact of the COVID-19 pandemic agreed between the Member States and the Commission include relevant initiatives⁹⁴, and the European Social Fund+, the European Regional Development Fund and Erasmus+ remain important funding sources for skills development.

However, **existing EU policy initiatives focus mostly on the design of the provision of education and training for adults** (the “supply side”), rather than on making this provision accessible to adults and encouraging them to use it (the “demand side”). The 2019 stocktaking report on the implementation of the Upskilling Pathways Recommendation and the 2020 evaluation of the Council Recommendation on the validation of non-formal and informal learning show that a key challenge is to ensure a sufficient uptake of new opportunities that are created on the supply side.⁹⁵ Moreover, existing EU policy initiatives are often limited in scope. For instance, the 2016 Council Recommendation on Upskilling Pathways focuses primarily on one level of skills (basic skills) and one target group (low-skilled adults). Hence, under the baseline scenario, the EU's policy support will not fully cover Member State policy reforms and programming of EU funds to reach the objectives of the initiative.

At the national level, 24 Member States have identified increasing participation of adults in learning as a priority in legal acts, policies, or strategies, which can be expected to translate into further concrete measures relevant to the general and specific objectives of the initiative.⁹⁶ However, on the basis of past experience, overall progress is expected to be uneven across Member States and groups of adults. While most Member States have for instance training voucher schemes in place (giving individuals an entitlement to a specific type of training), target groups are usually small and the overall impact on participations levels limited. This is also reflected in the Recovery and Resilience Plans by Member States: among the 18 plans that had been endorsed by the European Commission by August 2021, 7 include schemes providing individuals with training entitlements, however often with a limited number of expected beneficiaries (ranging from 3 500-30 000, with the exception of 500 000 expected beneficiaries

⁹³ [Council Recommendation of 24 November 2020 on vocational education and training \(VET\)](#) and [Pact for Skills](#). See Annex 8.1 for a more extensive discussion of relevant existing EU initiatives in the baseline scenario.

⁹⁴ See Annex 8.1 for a summary of relevant initiatives in these plans.

⁹⁵ [Evaluation of the Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning \(SWD\(2020\) 121\)](#) and [Council Recommendation on Upskilling Pathways- Taking stock of implementation measures \(SWD\(2019\) 89\)](#). See Annex 8.1 for further analysis on the existing instruments.

⁹⁶ In 13 Member States, these initiatives aim to increase the demand for adult learning offers by individuals directly, and this mostly concerns the group of Member States already reporting higher participation figures. See Annex 8.2 for details on the information summarized in this paragraph, which is based on information provided by the network of national adult learning experts.

in EL- cf. Annex 8.1). Some of the supporting services that could address the limited incentives and motivation of individuals to take up training (such as registries of recognised training opportunities, validation and guidance services) exist in many Member States, but they often have low effective outreach and are not systematically linked to financial support instruments.⁹⁷

The baseline scenario for this impact assessment hence assumes that **adult learning participation until 2030 stays on its modest trend growth** observed between 2007 and 2016, reflecting the ongoing policy efforts at Member State and EU level and the combined impact of the external drivers (Section 2.2.2). While adult learning participation dropped in 2020 following COVID-19 restrictions, direct impacts of the pandemic on adult learning participation are likely to be transitory (Annex 6.1). However, expected growth in adult learning participation under the baseline scenario is **not fast enough to reach the EU-level targets**⁹⁸ and to address the challenges facing the EU. Moreover, the inequalities in access to learning opportunities observed between different groups of adults (Section 2) are not expected to narrow, given the inconclusive trends in participation gaps (Annex 8.3) and the systematic patterns of under-representation also observed in Member States with high participation rates.

5.2 Measures discarded at an early stage

A number of policy measures have been discarded for inclusion in this initiative, in light of the existing policy initiatives at EU and Member State level in the baseline scenario and the specific objectives of this initiative.⁹⁹

Tax incentives for individuals: Income tax incentives for training exist in 16 Member States.¹⁰⁰ Their potential to increase incentives and motivation of non-participating adults is limited by a significant delay between expenditure and reimbursement (via the income tax return), requiring significant forward planning by individuals. While income tax incentives have a large potential target group, progressive income tax regimes imply that they often favour high-income earners, and by design they cannot support individuals who do not pay any or little income tax. This limits their potential to close existing support gaps. This is further exacerbated by a structural lack of integration with measures that could provide information on training opportunities and their quality and recognition.¹⁰¹

Subsidised loan or savings schemes for adult learning: Their high administrative burden makes them more appropriate for one-off formal education rather than shorter and more frequent non-formal learning to update skills throughout working life. They are better suited for already motivated and informed individuals, and less effective in incentivising and motivating current

⁹⁷ Member States with more supporting services tend to have higher participation rates (Annex 8.2).

⁹⁸ 50% for 2025 from the [European Skills Agenda](#) and 60% for 2030 from the [EPSR Action Plan](#).

⁹⁹ Supported by the review of evidence in Annex 9.

¹⁰⁰ According to the forthcoming update of the [Cedefop financing of adult learning data base](#), see Annex 8.2.

¹⁰¹ See the NL case study in Annex 13, where income tax incentives are replaced by individual learning budgets after an evaluation found them to be ineffective at stimulating training.

non-learners. They are also less well suited for low-income learners, who may face restricted access to credit and saving. Existing schemes point to generally limited outreach.¹⁰²

Financial incentives for training for employers and training funds: Both instruments are an important part of training support systems in many Member States.¹⁰³ They can increase training provision by employers by internalising the broader benefits that their training investment will confer to other employers, individuals and society at large, and related initiatives are supported by the Commission.¹⁰⁴ They are outside of the scope of the present initiative in light of its objective to close access gaps to training so that all adults receive support to training, including those not well-served by training from an employer, as well as its focus on individual's incentives and motivation to take up existing training opportunities.

Supply side policy guidance and funding: Public funding to education and training providers is used to support adult learning in many Member States, and plays an important role in particular for training for the unemployed and vulnerable groups.¹⁰⁵ Other policy initiatives from the Skills Agenda and EU funding support Member States to further develop the supply side of their adult learning systems. However, the evaluation of the Council Recommendation on the validation of informal and non-formal learning highlights that better training offers on the supply side need to be complemented with incentives on the demand side to significantly increase outreach to individuals.¹⁰⁶ The present initiative covers policy measures to ensure that the substance of existing initiatives on the supply side reaches individuals and empowers them to participate in training.

5.3 Description of the policy measures

Identified **policy measures need to contribute to closing the existing gaps in financial support.** This requires particular attention to groups that are often not well served by the current support systems as described in Section 2. Measures need to also **increase individuals' motivation and incentives to seek training** as evidence shows that financial support is important but not sufficient for participation. They are grouped in three areas and combined into packages (Section 5.4). Respecting the principles of subsidiarity and proportionality, **choices on key design parameters of all measures are left to the Member States** as well as the Advisory Committee on Vocational Training (ACVT)¹⁰⁷ to respect national collective bargaining for instance concerning the funding of training.

¹⁰² See the case study from AT in Annex 13 for an example.

¹⁰³ 25 Member States have financial incentives for companies and 14 have training funds, cf. Annex 8.2.

¹⁰⁴ See for instance the [non-exhaustive list of operations that can be supported with the future EU budget to deliver on the Skills Agenda](#) on p. 23 of the European Skills Agenda.

¹⁰⁵ European Commission (2019), [Adult learning policy and provision in the member states of the EU: a synthesis of reports by country experts.](#)

¹⁰⁶ [SWD \(2020\) 121 final.](#)

¹⁰⁷ ACVT, [Opinion on an EU initiative on ILAs and strengthening training provision in Europe.](#)

Area 1: Individual training entitlements

For the purpose of this impact assessment, individual training entitlements are defined as a **recurrent personal budget that is at the individual's disposal** to cover the direct costs of his/her training/course fees within a set time period. Also guidance, skills assessment and validation of offers may be eligible for funding from this budget. Training entitlements can **close gaps in financial support** by channelling funding for skills directly to the individuals in need of training. They can also **increase individuals' incentives and motivation** to seek training by providing salient financial support¹⁰⁸ and by allowing for content, timing and delivery mode of training that is more tailored to individual needs and professional ambitions. In the public consultation, more than 80% of respondents agreed that individual training entitlements are effective at tackling financial constraints and at increasing incentives and motivation influencing participation in training.¹⁰⁹

There are two main delivery modes to provide individual entitlements and they can be targeted at different groups, as discussed in the sub-section below. The **precise amount of entitlements, the funding source and other key design features would be left to Member States**. As stated in the ACVT Opinion, Member States are best placed to make these decisions in light of differences in national costs for training and existing arrangements for the funding of training. Member States would be asked to ensure that the implementation of the Recommendation does not reduce existing financial support for training by employers or training providers, but brings about a significant net increase in skills investments in order to satisfy the training needs not well covered by existing support systems.

Area 1.1: Delivery mode of training entitlements

This impact assessment analyses training vouchers (measure 1.1.1) as some kind of them existed in 21 EU Member States in 2020. Another delivery mode are personal accounts (measure 1.1.2). Whilst not widespread in the EU, personal accounts are an innovative approach that has been receiving increasing attention in the policy debate.¹¹⁰

Measure 1.1.1: Training vouchers

For the purpose of this impact assessment, we define training vouchers as a delivery mode for training entitlements through which a **specific funder (e.g. PES) funds a specific type of individuals' training** (e.g. in digital skills). Thus, the individual's flexibility in using the entitlement is limited. There may be also other modalities and conditions depending on the

¹⁰⁸ Theory and experimental evidence from behavioural economics suggests that *ex ante* training entitlements are more effective at incentivising training than an *ex post* reimbursement of training costs, as individuals "lose" support if they do not spend their budget. See for instance Sunstein and Thaler (2008), *Nudge: Improving Decisions about Health, Wealth and Happiness*.

¹⁰⁹ 84% of PC respondents agreed that training entitlements delivered through individual learning accounts are effective at tackling financial constraints, and 82% agreed that they increase incentives and motivation. Figures are similar for individual training entitlements delivered in other forms (82%, for both).

¹¹⁰ For more information on training vouchers in the Member States, see Annex 8.2. Personal accounts in France are presented in Annex 14. Such accounts also exist in Singapore, see the case study in Annex 13. [Recent OECD skills strategies](#) have recommended their introduction for BE (Flanders), NL and SI.

scheme (e.g. the period during which the entitlement has to be used). This policy measure addresses concerns voiced by stakeholders, in particular employers¹¹¹, to consider the correspondence of training to labour market needs.

Measure 1.1.2: Personal accounts

For the purpose of this impact assessment, we define personal accounts as a delivery mode for training entitlements that allows individuals to accumulate training entitlements over time in order to use them on whichever training, guidance or validation opportunity they deem the most useful and whenever they see fit within the boundaries of the scheme.¹¹² They **de-couple training entitlements from their original funder and give individuals full ownership over the entitlements**. They allow for a portability of entitlements during professional transitions and can facilitate cost-sharing between different funders, such as public authorities and employers, by allowing different funders to contribute to the account. This delivery mode addresses concerns voiced by some stakeholders (including the European Trade Union Committee for Education and civil society organisations such as the AGE Platform and FEPS/Jaques Delors Institute¹¹³) about the need for broad autonomy in how individuals can spend their training entitlements in order to promote a culture of developing skills throughout working life. The possibility to accumulate entitlements over several years was also specifically supported by some stakeholders.¹¹⁴

Area 1.2: Target group for training entitlements

Training entitlements could be provided to a specific target group (measure 1.2.1) or to all working age adults (measure 1.2.2).

Measure 1.2.1: Defined priority target groups

This approach can ensure that those who are in most pressing need of training can access it. These target groups can be defined on the basis of the employment or contract status, level of skills or the sector of employment, as well as other circumstances (i.e. disability). This measure addresses stakeholders' concerns about potential displacement effects of private skills investments ("deadweight loss")¹¹⁵ when opting for a broader target group. Such effects can be reduced by successfully targeting only those individuals who would not have been able to participate in learning otherwise. It corresponds to the approach followed by most Member States to date¹¹⁶ and is in line with the view expressed by some stakeholders, such as AONTAS

¹¹¹ BusinessEurope, SMEUnited, SGI Europe, "Employers' input to an ACVT Opinion on a future EU initiative aiming to improve/boost training provision across Europe".

¹¹² See Section 5.4 for a discussion of these boundaries.

¹¹³ ETUCE and AGE Platform Europe, response to PC on ILAs. Fernandes and Kerneis (2021), [Towards an individual right to adult learning for all Europeans](#), FEPS and Jacques Delors Institute.

¹¹⁴ For instance, the response by the Flemish Ministry of Education and Training to the PC on ILAs.

¹¹⁵ I.e., training entitlements could be used to pay for training individuals that would otherwise have been paid for with private funds. See Annex 11 for details.

¹¹⁶ Seen the mapping and discussion of training voucher schemes in Annex 8.2 as well as the IT case study presented in Annex 13, where the target groups are chosen at regional level.

(Ireland’s national adult learning organisation) or SMEunited (an employers organisation), that attention should be focused on specific vulnerable groups.¹¹⁷

Measure 1.2.2: All working age adults¹¹⁸

This approach includes e.g. all those currently in employment who would like to train for new tasks to be able to keep their job or prepare for professional transitions. It addresses issues related to the fragmentation of support schemes for adult learning, and can facilitate the promotion of a culture of developing skills throughout working lives. This is the approach taken by FR, NL and Singapore.¹¹⁹ It is in line with the view that the initiative should promote a universal right and be available to all learners, expressed in the public consultation by stakeholders such as the Lifelong Learning Platform (LLP), the European Trade Union Confederation (ETUC) and Eurocadres (trade unions) or WKÖ (an Austrian employers’ organisation). In its dedicated opinion, the ACVT agrees that while the initiative should focus on the upskilling and reskilling of the workforce (workers/employees/self-employed), it may also tackle training for other target groups such as the unemployed and inactive individuals, retired people or young persons not in employment, education or training.¹²⁰

Area 2: Career guidance

Career guidance services support individuals in their training and career choices, direct individuals to skills assessment and validation procedures, and can provide assurance concerning the quality of training opportunities and the subsequent recognition of training outcomes on the labour market. This can **increase individuals’ incentives and motivation** to seek training by raising awareness of training needs and available offers, improving the “match” between individuals and training opportunities and training outcomes.

The importance of guidance, and its integration into broader strategies to increase adult learning, has been emphasised by the Council.¹²¹ It was also underlined by respondents from all stakeholder groups in the targeted consultations and positions papers submitted in the public consultation.¹²² 92% of public consultation respondents¹²³ agreed that guidance is effective in increasing incentives and motivation to participate in training, reflecting near universal support

¹¹⁷ AONTAS, response to the PC on ILAs and SMEunited, response to PC on ILAs and micro-credentials.

¹¹⁸ The focus of this measure is on all working age adults, with the precise age range to be determined by Member States. Since the Adult Education Survey only includes individuals aged 25-64, quantifications in this IA are based on this age range.

¹¹⁹ See Annexes 13 for case studies on NL and Singapore, and Annex 14 for details on the French CPF.

¹²⁰ ACVT, *Opinion on an EU initiative on ILAs and strengthening training provision in Europe*.

¹²¹ [Resolution of the Council and of the Representatives of the Governments of the Member States, meeting within the Council of 21 November 2008 on better integrating lifelong guidance into lifelong learning strategies](#). Also see Annex 8.1.

¹²² Including in position papers submitted in response to the public consultation by public authorities (e.g. *the Ministry of Labour and Social Policies of Italy*), social partners (e.g. *SMEunited, ETUCE and Eurocadres*) and NGOs (e.g. *the Lifelong Learning Platform/LLP and European Association for the Education of Adults/EAEA*).

¹²³ Ranging from 87% of businesses to 96% of public authorities.

from all groups of stakeholders. Also the ACVT's opinion on the initiative emphasises the importance of quality, effective and inclusive guidance and counselling services are essential.

Measure 2.1: Making career guidance available to all

Under this measure, Member States would be recommended to ensure that career guidance is available to all. Career guidance services already exist in almost all Member States, though with a large variation in effective outreach (Section 2.2). Such services often accompany initiatives that provide individual training entitlements.¹²⁴ This policy measure would underline the importance of outreach and cooperation with all relevant stakeholders as well as up-to-date labour market and skills intelligence to inform guidance. The detailed modalities of career guidance provision would be left to the Member States (and may be made available to individuals free of charge or considered as eligible for funding from training entitlements while ensuring it is available to all).

Measure 2.2: Career guidance as a pre-condition for the mobilisation of the training entitlement

Under this policy measure, the use of the training entitlement would be subject to compulsory guidance, with a view to improve the match between the selected learning opportunity, the labour market and the individual skills needs. This reflects current provisions or policy reflections in some Member States¹²⁵, and addresses stakeholder concerns (in particular by employers such as SMEunited) about a lower efficiency of spending on training entitlements without specific guidance.

Area 3: Enabling framework

Beyond career guidance, additional policy measures can create an enabling framework complementing individual training entitlements and thereby contributing to reaching the objectives of this initiative.

Measure 3.1: Public registry of recognised training, validation and career guidance opportunities

A public registry of recognised training opportunities can **increase individual's incentives and motivation** to seek training. It does so by centralising information on available training opportunities, thus facilitating the "match" between individual and training opportunities. It has also the potential to reduce uncertainty about the quality, labour market relevance and recognition of the registered training on the labour market by delegating the relevant checks to a third party, tackling the problem of imperfect information by individuals.¹²⁶ A comparison of the experiences of the English and Scottish training entitlement schemes also point to the importance of having such a registry for the success of related initiatives (see Annex 13). A

¹²⁴ See for instance the Singapore experience described in Annex 13, where the "Skills And Training Advisory Services" are available for users for the Skills Future Credit and the French CPF described in Annex 14 where the CPF has been accompanied by a strengthening of the "Professional Evolution Guidance" (CEP).

¹²⁵ See the case studies from Estonia and Italy in Annex 13 and Annex 8.2.

¹²⁶ See for instance the criteria set by the SkillsFuture Singapore to enter the Skills Future Credit course directory, presented in Annex 13.

registry of recognised offers provides an opportunity to ensure that the substance of existing recommendations, notably the Council Recommendation on VET, becomes tangible for individuals.¹²⁷

Comparable registries already exist in some Member States (Section 2.2), and their establishment has been specifically supported in the targeted consultations by some stakeholders such as the European Mentoring & Coaching Council.¹²⁸ In the public consultation, 86% of respondents¹²⁹ agreed that such registries are effective in increasing incentives and motivation to participate in training. Respondents also largely agreed that skills intelligence should play a strong role in the selection of training opportunities included in the registry, and that public authorities, employer organisations and trade unions should play a strong role. While there was broad consensus among stakeholders that strong quality assurance mechanisms are essential to ensure trust in and acceptance of a scheme of individual training entitlements, employer organisations (such as SMEunited) pointed out that eligibility rules need to be sufficiently flexible to ensure a correspondence of the training offer to (changing) skills needs on the labour market.

Under this policy measure, Member States would be recommended to **establish a public registry of recognised training, validation and career guidance opportunities**. Member States would be recommended to ensure adherence to quality assurance and the labour market relevance of the included training offers by establishing a durable governance mechanism that considers evidence from skills intelligence and social partners and foresees periodic updates to the registry, with the view to support flexibility. Member States would be recommended to also make the registry easily accessible, notably by digital means, and user friendly for individuals.

Measure 3.2 Paid training leave

Paid training leave schemes allow individuals to take time off work for training while still receiving their salary in its entirety or in part, or alternatively an allowance to cover the costs of living from public or social partner funds. They can **cover gaps in financial support** concerning the indirect/opportunity costs of training that is not covered by regular employee training during working hours, and for individuals with weak or no links to an employer. They can therefore **increase incentives and motivation for individuals** to train by addressing the time obstacle to training.

Paid training leave provisions of some sort already exist in 24 Member States, but with variable coverage and often low take-up (Section 2). In the public consultation, 82% of respondents agreed that paid training leave for employees is effective to address time constraints to participation in training, and 85% agreed to make allowances for the cost of living during

¹²⁷ [Council Recommendation of 24 November 2020 on vocational education and training \(VET\)](#). See Annex 8.1 for a discussion of additional relevant EU initiatives.

¹²⁸ European Mentoring & Coaching Council, response to PC on ILAs and micro-credentials.

¹²⁹ Ranging from 65% of businesses to 95% of NGOs and others.

training available to non-employees.¹³⁰ Trade unions emphasised the need to strengthen the existing paid training leave provisions in the Member States in position papers and the targeted consultations.¹³¹

Member States would be invited to **introduce paid training leave provisions or reassess the existing provisions** to ensure they cover all types of employed individuals, including on financial support for employers whose employees make use of paid training leave (in particular SMEs who face greater challenges, cf. Section 2). They would also be recommended to strengthen the links between paid training leave provisions and other available support measures. The detailed modalities of provisions would be left to the Member States.

Measure 3.3 Effective governance for continuous improvements

Effectively closing support gaps and increasing individual's incentives and motivation requires an effective governance to **ensure sustainable funding and efficient spending**. It involves a constant **monitoring and evaluation** of the success of the existing support schemes and possible adjustments to them. For instance, priority target groups may change as the labour market evolves. Also systematically integrating relevant EU Recommendations¹³² and the experience from evaluations and observed take-up rates among different groups of adults can help a support scheme reach its objectives more effectively and efficiently, including concerning effective outreach to vulnerable groups.¹³³ With this policy measure, Member States would be recommended to **set up funding and governance arrangements** that pay particular attention to the needs of micro-entreprises and SMEs and allow for an effective integration of financial and non-financial support for training. They would also be recommended to ensure **outreach and awareness-raising** tailored to the needs of the potential beneficiaries of the scheme for individual learning accounts, jointly with social partners, civil society organisations, regional and local organisations and other relevant actors and networks.

In line with the principle of subsidiarity, these governance arrangements would be set at national level, with the view to **evaluate and adjust as necessary**, for instance, concerning the amount of training entitlements, priority target groups, the registry of recognised training opportunities or dedicated outreach and awareness campaigns. The importance of including external stakeholders, such as social partners, was underlined by employer representative organisations and trade unions.¹³⁴ This was also underlined in the ACVT's dedicated opinion.

¹³⁰ Ranging from 54% for trade unions to 100% for public authorities concerning paid training leave for employees and 54% for trade unions and 94% for citizens concerning allowances open to non-employees.

¹³¹ ETUC and ETUCE, responses to the PC on ILAs and dedicated social partner hearing.

¹³² Notably the [Council Recommendations on VET](#), [Upskilling Pathways](#) and the [validation of non-formal and informal learning](#), see Annex 8.1 for an overview.

¹³³ Improving outreach was one of the main points of the EAEA contribution to the PC. According to them this is especially important for vulnerable groups such as the low skilled.

¹³⁴ Stressed in the responses to public consultations on individual learning accounts by ETUC, IndustriAll and Eurocadres on the trade union side and BusinessEurope, SMEunited and SGI Europe, as well as the MEDEF, on the employer side.

Annex 5 provides an **overview of the initiative's intervention logic**, linking the policy measures to the identified problems and the objectives of the initiative.

5.4 Description of the alternative policy packages

The policy measures are grouped in two policy packages (**packages A and B**). Packages are designed to be **coherent and their policy measures are mutually reinforcing** in achieving the specific objectives. For instance, making career guidance a pre-condition for the mobilisation of the training entitlement is more feasible when the provision of training entitlements is limited to defined priority target groups. At the same time, they **highlight the main trade-offs** that emerge on the basis of the available evidence and the stakeholder views (cf. the discussion above under Area 1).

Package A combines measures 1.A.1 (vouchers as a delivery mode) and 1.B.1 (defined target groups). It hence aims to empower adults to participate in learning by closing gaps in existing support systems in a targeted way, focusing financial support on those most in need of training and on providing the skills which are the most needed on the labour market at a certain point in time. Vouchers are the delivery mode that fits best this approach because they enable the funders to decide who they give the voucher to and what type of training the voucher should cover. Measure 2.2 (Career guidance as a precondition for the mobilisation of the training entitlement) is also included in package A, as it allows to ensure that the funder's assessment of labour market relevance is reflected in the choice of training.

Package B combines measures 1.A.2 (personal accounts) and 1.B.2 (covering the whole adult population of working age), with the view to operationalise the right to training as a universal right. It responds to the argument that in a context and changing skills requirements and more frequent labour market transitions, everyone should receive incentives to participate in training, no matter their current employment status or their level of skills. Personal accounts are the delivery mode that fits best this approach as they allow for entitlements to follow individuals throughout their careers and they facilitate cost-sharing, which is essential when the entitlement covers the whole adult population of working age (employed, unemployed, atypical workers, platform workers, etc.).

Policy package B has 2 two sub-options, B.1 and B.2: under package B.1, all beneficiaries receive the same amount of entitlements (measure 1.2.2), whereas under package B.2 training entitlements are modulated according to the target group, with those having particular training needs as determined by the Member States receiving a higher amount of entitlements (new measure 1.2.3). This is due to the fact that during the analysis, the complementarity between some elements of package A and some elements of package B became clear. This also follows the OECD's and the ILO's recommendation for universal support that is however modulated based on recipient characteristics.¹³⁵

Both packages A and B include measure 2.1 and measures from area 3 because they are considered as essential to the success of the initiative irrespective of the package chosen. Only

¹³⁵ OECD (2019), [*Individual learning accounts: Panacea or Pandora's box?*](#) The ILO position paper submitted in the PC also expressed support for a universal yet differentiated approach.

training, validation and career guidance opportunities included in the public registry of recognised opportunities would be eligible for funding from training entitlements under all packages, to promote quality, labour market relevance¹³⁶ and recognition of the training undertaken. Under package A, this condition complements the requirement of guidance as a condition for mobilising the training entitlements. However, the public registry would be accessible also for those who do not receive training entitlements.

Table 1: Overview of the policy packages

Measures	Package A	Package B.1	Package B.2
Training entitlement delivery mode	Measure 1.1.1 : – Training voucher	Measure 1.1.2: Personal account	Measure 1.1.2: Personal account
Training entitlements target groups	Measure 1.2.1: – Defined priority target groups	Measure 1.2.2: Entire adult population of working age and same entitlement	Measure 1.2.3: Entire adult population of working age, but modulated entitlement according to the target group
Career guidance	Measure 2.1 (Guidance for all)		
	Measure 2.2 (Guidance as a pre-condition)		
Enabling framework	Measure 3.1 (Public registry)		
	Measure 3.2 (Paid training leave)		
	Measure 3.3 (Effective governance)		

6. WHAT ARE THE IMPACTS OF THE POLICY PACKAGES?

6.1 Analysing the main impacts

This section presents the main social and economic impacts of the policy packages as well as impacts on fundamental rights. No direct environmental impact was identified, and potential indirect impacts are discussed in Section 7 under “coherence with other EU objectives”.

Significant efforts have been made to collect the necessary data and provide a quantitative assessment. However, this was not always possible. A first reason are **limitations concerning the availability of evidence**, notably on possible interactions between policy measures. A second reason is that respecting the principle of subsidiarity underlined in Article 149 TFEU, **choices on key design parameters of the policy options are left to the Member States**, including on the amount of training entitlements and priority target groups. This precludes a

¹³⁶ The need for labour market relevance was widely mentioned during the consultation process, with a minority view expressed especially by NGOs (EAEA, LLP) that a broader set of life skills should also be supported.

full measurement of their social and economic (including fiscal) impacts. Finally, impacts will depend on the **degree of implementation** of the recommendations by Member States and on the extent to which it can build on already existing provisions.

Therefore, the approach taken is to outline a quantification of expected impacts for **specific implementation scenarios** on the basis of assumptions on the key design parameters derived from the available evidence, complemented with a qualitative assessment. Impacts are assessed relative to the baseline scenario (Section 5.1), based on a view of how the problem may evolve (Section 2.4) and taking into account differences in Member States' estimated adult learning participation levels and training costs. This is complemented by a qualitative mapping of relevant already existing provisions in the Member States in Annex 8.2. The methodology used is described further in Annex 4, and details on these scenario analyses for the quantification of impacts referred to throughout this Section, including **sensitivity checks** on the key parameters, can be found in Annex 12.

Across impact categories and target groups, the horizontal recommendation of **effective governance mechanisms with monitoring and evaluation** is expected to have positive impacts by allowing for an adjustment of the design parameters on the basis of “lessons learned”.¹³⁷

6.1.1 Social impacts

On individuals

Participation in learning: All packages are expected to stimulate reforms in Member States that **increase the participation of adults in learning** compared to the baseline scenario. The impact on participation rates will depend on the size of the target group that receives training entitlements, on the number of potential beneficiaries who spend their training entitlement (“take up”), and the extent to which individuals purchase training they would otherwise not have undertaken (no “deadweight loss”, cf. Annex 11 for details). The scenario analyses below are based on the existing evidence from related schemes and from training voucher experiments. A limitation is that they do not fully consider **interactions between training entitlement and the other policy measures** that are included in packages A and B, and whose expected impact is discussed qualitatively below.

Package A could result in an additional 5.8 million adult learners every year across the EU if training entitlements were provided to all low qualified. This would increase their annual participation rate in 2030 considerably (from a predicted 23.4% under the baseline scenario to 35.0%). The overall participation rate would increase from 48.6% to 51.0% due to the relatively small size of the target group. Similar changes are expected for additional priority target groups considered in the scenario analyses on packages A and B.2 (the inactive, unemployed, workers not in permanent employment and workers in SMEs), with the support provided to workers in SMEs (the largest of these priority target groups) leading to the highest overall participation

¹³⁷ See e.g. Annex 14 for discussion of how the recent reforms of the French CPF have increased take-up, and have eliminated the initial under-representation of low-qualified individuals among training participants.

rate of 56.2%.¹³⁸ Package A would, therefore, not reach the Porto target of 60% participation by 2030 for plausible choices of priority target groups.

Packages B would be expected to significantly increase adult learning participation across all groups of working age adults. Package B.1 could result in an additional 33.6 million adult learners across the EU and increase the participation rate to 62.7% by 2030. Under package B.2, the corresponding figures could be an additional 36.6 million learners and a participation rate of 63.9% when providing all workers in SMEs with additional entitlements.¹³⁹ Both scenarios under package B would, therefore, achieve the Porto target of at least 60% participation by 2030.

By targeting specific groups, package A could also **reduce inequalities in learning participation across groups of adults**: for example, the gap in the participation rate of low qualified adults compared to the average in 2030 could decrease by 9.2 percentage points (from 25.2 to 16.0 percentage points). The impacts of **packages B on inequalities in participation across groups are ambiguous**: they may increase if take-up rates among under-represented groups are significantly lower, or decrease them due to the lower deadweight loss for priority target groups. Modulating support according to the target group in package B.2 tends to reduce inequalities. The larger target group of packages B allow them to better address support gaps that cannot be easily anticipated by policy makers on the basis of individual characteristics (for instance, the ambition to prepare for a professional transition).

Both packages could also **reduce inequalities in adult learning participation across Member States**, with stronger impacts under packages B due to its larger target group. The reason is that in Member States where adult learning participation rates are lower under the baseline scenario, deadweight loss can be expected to be less prevalent, resulting in larger increases in participation rates. Under package B.1, the increase could range from 11.6 percentage points in the Member State with the highest participation rate under the baseline scenario (SE) to 17.7 percentage points in the Member State with the lowest (RO).¹⁴⁰

The limited available evidence suggests that making **prior career guidance a condition** for the mobilisation of training entitlements in package A may have a small negative effect on the uptake of training.¹⁴¹ The evidence from the French CPF suggests that when individuals can

¹³⁸ We assume an annual take-up rate of training entitlements of 13.1% for the low qualified and 22% for other groups, on the basis of evidence from existing schemes. We further assume a deadweight loss of 30%, adjusted by Member State and target group. See Annex 11 for a review of evidence underlying these assumptions, and Annex 12.A for further details on the quantification scenarios.

¹³⁹ We assume training entitlement worth 30 hours of training under package B and 50 hours for priority target groups under package A and B2. The monetary costs depend on Member States' training costs, and are estimated to be around €381 for 30 hours and €631 for 50 hours on average across the EU, similar to the amounts typically provided in existing schemes. For the entitlements worth 30 hours, we assume somewhat lower take-up rates of 18.4% (9.5% for the low-qualified), cf. Table 12A.2.

¹⁴⁰ The corresponding figures are 12.8 and 19.4 percentage points for package B2 with additional support to workers in SMEs, cf. Table 12A.3.

¹⁴¹ Perez-Johnson et al. (2011), [Improving the Effectiveness of Individual Training Accounts: Long-Term Findings from an Experimental Evaluation of Three Service Delivery Models](#). Concerns that such a pre-condition might

accumulate their training entitlements in personal accounts over multiple years (as foreseen in packages B), they use this flexibility to undertake less frequent yet longer or more expensive trainings, which would reduce the impacts on annual participation rates in packages B. However, aligning the intensity of training to the current skills needs and circumstances is expected to increase its effectiveness overall.¹⁴²

Registries of recognised training opportunities can be expected to increase the uptake of training by making it less time-consuming for individuals to identify a suitable training offer. The review and strengthening of **paid training leave** is expected to increase the share of beneficiaries who make use of their training entitlements as it relaxes time barriers, in particular among groups often not yet covered by existing schemes such as atypical workers (Section 2.2).

Wages and employment: The impacts on wages and employment follow from the changes in participation rates and are lower for package A and highest for package B.2. Studies from a large number of countries suggest that there are substantial **positive wage returns** to training. Return estimates also remain significant in studies that are able to account for the selection of high-ability adults into training, and a review of these estimates suggests returns around 1% for a training course of 30 hours (Annex 10).

Regarding the **impact on employment**, a review of more than 200 recent studies of active labour market programmes by Card et al. (2018) identified a significant increase in employment probability of the previously unemployed after training participation.¹⁴³ Results from macroeconomic modelling that also takes into account general equilibrium effects via higher productivity and a more efficient reallocation of workers across jobs suggest that giving low-qualified individuals training entitlements under package A could yield an additional 30 000 jobs across the EU by 2030, compared to 120 000 under package B.1 and 140 000 under package B.2 when providing additional support to all low qualified, with job gains increasing to 100 000 - 400 000 by 2040 (see Annex 12C for details).

There will be substantial **heterogeneity in wage and employment returns** both across individuals and training courses. The conditions on quality assurance and labour market relevance for inclusion in the registry of recognised training opportunities and effective governance provisions are expected to ensure that average returns are in line with those found in the literature. While giving individuals greater freedom in their choice of training opportunities under packages B compared to package A can be expected to lead to a higher

deter potential participants from participating in training are also raised in the description of the STAP scheme in NL (see the case study in Annex 13).

¹⁴² For instance, the average cost of a CPF-funded training between Nov. 2019 and June 2021 was €1 263 and is higher for the unemployed compared to a basic annual training entitlement of €500, indicating that people make use of the possibility to accumulate their entitlements (see Annex 14 for details). Note that the estimated impact of the policy measures on annual adult learning participation rates should be considered an (imperfect) summary measure of effectiveness, but is distinct from the specific objectives of the initiative outlined in Section 4.2.

¹⁴³ Card et al (2018), [What works? A meta-analysis of recent active labor market program evaluations](#). Journal of the European Economic Association. See Annex 10 for a review of the evidence.

share of training conferring more transversal skills, there is no evidence that it is less labour market relevant (Annex 11).

All packages are expected to **have positive indirect effects on wages and employment outcomes by improving the participation in guidance and take-up of skills validation opportunities**, which can facilitate wage negotiations or finding employment. The evaluation of the Council Recommendation on validation of informal and non-formal learning concluded that strengthening the financial support to individuals can promote the uptake of the new validation offers that have been created by the Member States.¹⁴⁴ 81% of public consultation respondents agreed that the European initiative on individual learning accounts can add value on the validation of non-formal and informal learning outcomes, and 77% agreed on the provision of guidance services.¹⁴⁵

Working conditions and social dialogue: All packages are expected to improve the working conditions of the beneficiaries of training entitlements by **improving access to training**. Providing individuals with training entitlements is already used by some employers, mainly large companies, to improve the working conditions and motivation of their employees to take up training. Under package A, positive impacts would concern only some target groups selected by the Member State. Under packages B, this would cover all adults on the labour market, whereby the groups most in need could receive additional support under B.2.

The recommendation to revisit **paid training leave provisions** is expected to improve the working conditions of employed adults, benefitting particularly those who are not well covered by the current paid training leave provisions (notably those in atypical work and employees of SMEs). It would also benefit employees at large by making it easier to identify quality training opportunities and cover the direct cost of training, strengthening the take-up of existing training leave offers beyond the currently low levels (Section 2.1).

In the consultations, trade unions, such as ETUC¹⁴⁶, have expressed their concern that the initiative could reduce the training provision by employers, and employers, such as SMEunited¹⁴⁷, have argued that resulting national schemes should not regulate such training provision. Both packages would recommend to Member States to ensure that the implementation of the Recommendation does not reduce existing financial support for training by employers, mitigating this concern. Moreover, the decision to spend training entitlements would lie with the individual, ensuring that the resulting training would **complement the existing training provision by employers**.

Packages can strengthen social dialogue, by recommending to give social partners an important role in the governance of the registry of recognised training opportunities. Packages

¹⁴⁴ See the [Council Recommendation of 20 December 2012 on the validation of informal and non-formal learning](#) and its [2020 evaluation \(SWD \(2020\) 121 final\)](#).

¹⁴⁵ Ranging from 57% of businesses to 91% of citizens for validation, and from 52% of businesses to 92% of trade unions for guidance.

¹⁴⁶ ETUC, response to PC on ILAs and micro-credentials.

¹⁴⁷ SMEunited, response to PC on ILAs and micro-credentials.

B could further strengthen the role of skills in social dialogue by creating the infrastructure for top-ups to the personal accounts of employees in specific companies or sectors.¹⁴⁸

Other social impacts on individuals: Packages A and B are expected to have a range of **positive impacts on individuals' health and well-being** (Section 2.3). The universal packages B is expected to create less stigma for vulnerable groups than the targeted package A in light of their approach that training is for everyone, no matter their current employment situation or skills level.¹⁴⁹

On education and training systems

All packages are expected to **increase the size of the market for continuing training** by mobilising additional skills investments, with a larger potential impact of packages B stemming from their larger scale. This creates opportunities for training providers, who are also expected to benefit from enhanced visibility for their training offer after inclusion in the registry and from a rapid invoicing process with the authority managing the training entitlements as the single contact point.

The registry of recognised training opportunities is expected to **increase the quality and transparency of training offers**, in particular for non-formal training offers where the scope for improvements is largest (Section 2.2). While small training providers may face greater difficulties to meet the requirements for inclusion in the registry, the effective and inclusive governance of the registry recommended to the Member States is expected to remove unnecessary access barriers. This form of governance is also expected to improve the dialogue between training providers, public authorities and social partners, which can help **improve the tailoring of the training offers to labour market needs**, including the skills needs of employees of SMEs.¹⁵⁰

The increased transparency from the registries of recognised training opportunities can be expected to **increase competition among training providers and reduce the cost of training**, thereby having a positive impact on the funder of the training. This is confirmed by first indicative evidence from the French CPF, where the average price of more standardised training offers such as English language certificates or driving licences has decreased following the most recent reform (Annex 14).

On society as a whole

Packages A and B are expected to have a range of positive impacts on civic participation and social cohesion (Section 2.3). Since these benefits are expected to be proportional to the increase in adult learning participation, they can be expected to be stronger for packages B.

¹⁴⁸ This is possible in the French CPF since 2020. See Annex 14 for details.

¹⁴⁹ See Moffitt (1983), [An Economic Model of Welfare Stigma](#) (The American Economic Review) for a presentation of this argument and Stuber and Schlesinger (2006), [Sources of stigma for means-tested government programs](#) (Social Science & Medicine) for empirical evidence.

¹⁵⁰ In the consultations, representatives of SMEs pointed to a lack of training offers that are tailored to their needs as a significant hurdle. SMEs are less able than large companies to “create their own training offer” due to their smaller scale.

The evidence also suggests that increasing inequality of opportunity has played an important role in the recent rise of anti-establishment sentiment.¹⁵¹ This hints at broader positive impacts of closing gaps in the access to training and thereby equalising opportunities.

6.1.2 Economic impacts

Direct costs of training entitlements

The direct costs of training entitlements depend on the size of the target group, the take up and the amount of entitlements. The scenario analyses introduced above suggest that implementing package A in all Member States could result in a direct annual cost of €4.2 billion (or 0.03% of 2020 GDP) for EU-27 when targeting the low-qualified. Packages B costs would be higher, ranging from €16.8 billion /0.13% of GDP (package B.1) to around €24.5 billion / 0.18% of GDP (package B.2 with additional entitlements for SME workers). The amounts will depend on decisions by Member States regarding target groups and levels of entitlements.¹⁵² Depending on the financing arrangement chosen by the Member States, these costs would be partly or fully borne by public authorities, employers or individuals.¹⁵³

Additional costs for enterprises including SMEs

Additional costs may result from **staff absence during training**, which can lead to a decrease in productivity. Scenario analyses suggest that possible additional costs of undertaking training during working hours (either with informal permission from the employer, or making use of paid training leave provisions) would not outweigh training benefits (see Annex 12B). In the consultations, SME representatives have highlighted that the absence of staff during periods of training is a particular challenge for SMEs. Therefore, both policy packages include a recommendation to also include the financial support provided to employers whose employees make use of paid training leave in the review of the adequacy of existing paid training leave provisions, with particular attention to the needs of SMEs.¹⁵⁴ They also include a recommendation to consider the needs of micro-entreprises and SMEs in the design of funding arrangements.

Additional costs for public authorities

Under all packages, the set-up, maintenance and governance of the **registry of recognised training opportunities would result in costs to public authorities**. Additional costs may be

¹⁵¹ Sergei Guriev (2018), [Economic Drivers of Populism](#). AEA Papers and Proceedings.

¹⁵² According to the mapping in Annex 8.2, 21 Member States already have schemes providing training entitlements to individuals, and integrating these schemes would reduce additional funding needs. However, these schemes usually have a narrower target group than the scenarios considered under packages A and B.

¹⁵³ In the PC, 91% of respondents agreed that public funding should be used for training entitlements, 68% supported the use of an employer's levy (e.g. on payroll) and 53% supported individual contributions. Note that the policy measures on training entitlements (Section 5.3, Area 1) do not include a requirement of individual co-payments when using their training entitlements, but individuals may contribute voluntarily or via social security contributions. Funding sources may be combined, and 94% of respondents supported a (complementary) use of EU funds.

¹⁵⁴ Currently, public authorities already provide financial support to employers of workers on paid training leave in 12 Member States according to adult learning experts, see Annex 8.2.

limited for the 12 Member States where similar registries already exist. Under packages B, the **set-up and maintenance of personal accounts** would create additional costs. Limited information is available on the magnitude of these costs, as Member States do not systematically report them in a sufficiently disaggregated way. Estimates for the French CPF point to costs of running the system of personal accounts of about €100 million over the three-year period 2020-2022. A review of the limited available evidence suggests that administrative costs as a share of direct costs of training entitlements decrease with the number of beneficiaries from a scheme.¹⁵⁵

Providing **career guidance** for free could result in **additional costs for the guidance providers**, often public authorities. However, public career guidance already exists in 25 Member States at least to some extent (Section 2.2). The simplified cost options used for reimbursement of guidance services under the ESF¹⁵⁶ place the cost for an hour of in-person guidance at on average €18 across the Member States, ranging from €2 to €39. Thus, no or minimal set-up costs would arise and most additional costs would result from a higher uptake. Similarly, modest additional costs for public authorities can be expected due to the increase in the use of validation opportunities.

Both packages allow for a provision of guidance *services* by providing orientation through the registry of recognised opportunities. Under package A, in-person guidance is a precondition for the use of training entitlements, and additional costs of this can be substantial. Therefore, expected additional **guidance costs per beneficiary are significantly lower under packages B compared to A.**

The recommendation to **revisit paid training leave provisions** included in both packages could also lead to additional costs for public authorities. In the Member States where public authorities are already involved in the funding of paid training leave, **additional costs would be limited to those resulting from expanding coverage or higher take-up** resulting from the other policy measures included under packages A and B.¹⁵⁷

Costs for education and training providers

Compliance with the criteria required for inclusion in the registry of training offers may create costs for training providers, which can be a relatively higher burden for smaller providers. To minimise compliance costs for training providers, both packages recommend to establish these

¹⁵⁵ See Annex 11.2 for an overview of the available evidence on costs, and Annexe 12B for details on how this has been incorporated in the cost benefit calculations. The mapping of available infrastructure in Annex 8.2 shows that relevant supporting factors to limit administrative costs of the policy packages (e.g. secure electronic identification) exist in many Member States.

¹⁵⁶ European Commission (2018), [Developing 'Off-the-Shelf' Simplified Cost Options \(SCOs\) under Article 14.1 of the European Social Fund \(ESF\) regulation.](#)

¹⁵⁷ See Annex 12B for an estimate of additional paid training leave costs for a) beneficiaries from training entitlements; and b) and among all those in employment. See the recent [Impact assessment on work life balance](#) for an estimation of the costs and benefits of paid training leave more generally, based on the assumption of a two-week paid leave period.

criteria in line with existing national quality assurance frameworks and a governance of these registries that is responsive to these concerns.

Other economic impacts

On enterprises and SMEs: All packages are expected to lead to an **increase in the productivity of workers** and hence in the **competitiveness of their employers**. The literature review suggests that productivity impacts are about double the size of wage impacts, so that a 30 hour training increases productivity by about 2%.¹⁵⁸ In the public consultation, 77% of respondents agreed¹⁵⁹ that the initiative could increase the productivity and competitiveness of companies. As employees of SMEs currently participate less in training, **the potential impacts of both packages on the productivity and competitiveness of SMEs are larger**. Yet, while it is clear that packages B would cover SMEs, the impact of package A on SMEs would depend on each Member State's choice of target groups, which could or could not cover SME employees.

On individuals: Individuals participating in training may face **indirect costs related to their inability to earn income during periods of training or costs of transport**. The initiative reduces such indirect costs by including the paid training leave provisions in all packages, and in packages B by the flexibility given to individuals concerning the timing of training, allowing them to select the most convenient time (such as a period of low economic activity to minimise income losses).

On public authorities: The increase in employment foreseen for both packages can be expected to entail in the long run **higher tax returns and cost savings** resulting from lower spending on unemployment benefits or healthcare (Section 2.3), with the smallest impacts for package A and the strongest impacts for package B.2.

On society as a whole: By facilitating training in transversal skills and for professional transitions, both packages are expected to **improve the employability of workers and thus support successful labour market transitions** in particular from declining to growing sectors of the economy. 81% of public consultation respondents¹⁶⁰ agreed that the initiative could **support the digital and green transitions** by providing relevant skills. Impacts of packages B are expected to be stronger as they can support a broader range of training to support professional transitions, with the strongest impacts for package B.2 due to its additional support for target groups with specific needs.

Both packages are expected to **increase investment and business growth**, in light of the evidence of skills shortages as a barrier for companies (Section 2.3). They can be expected to have indirect **positive impacts on research, innovation and technology diffusion**¹⁶¹ throughout the economy. Impacts of packages B could be expected to be larger due to the fact that it is expected to trigger more participation in learning than package A. This is in part also

¹⁵⁸ See Annex 10 for a literature review.

¹⁵⁹ Ranging from 42% of trade unions to 93% of NGOs and others.

¹⁶⁰ Ranging from 46% of trade unions to 94% of citizens.

¹⁶¹ Sekmokas et al. (2020), [Workforce skills and innovation diffusion- Trends and policy implications](#).

due to the fact that **personal accounts can stimulate additional skills investments by companies** by facilitating a flexible sharing of training costs among multiple stakeholders.¹⁶²

The estimated macroeconomic benefits include a **higher level of GDP per capita** in 2030 estimated at 0.23% (package A targeting the low qualified), 0.87% (package B.1) and 0.99% (package B.2 with additional entitlements for the low qualified) in comparison to the baseline, with increases between 0.33-1.4% of GDP by 2040 (cf. Annex 12C). The set-up of personal accounts in **packages B is expected to contribute to macroeconomic stabilisation**, as it allows individuals to accumulate training entitlements over time and spend them on training during economic downturns and also creates the infrastructure to quickly provide individuals with additional public support for skills investments during downturns.¹⁶³

6.1.3 Fundamental rights impacts

Article 14(1) of the Charter of Fundamental Rights of the EU states that “*everyone has the right to education and to have access to vocational and continuing training*”, which is also reflected in principles 1, 4 and 5 of the European Pillar of Social Rights. Both packages are expected to have a positive impact on fundamental rights by bridging gaps in the access to continuous training. Fundamental rights impacts are **stronger under the universal but targeted support provided under package B.2**, as it foresees coverage of the entire adult population of working age while also providing specific support to those most in need.

6.2 The choice of legal instrument

In light of the objective of the initiative to support reform in the Member States and the envisaged legal basis, only non-binding instruments are under consideration. A first option would be a **revision of the Employment Guidelines** to support Member State reforms through the European Semester process and country-specific recommendations. The most recent revision from October 2020¹⁶⁴ already asks Member States to “*strengthen the provisions on individual training entitlements and ensure their transferability during professional transitions, including, where appropriate, through individual learning accounts*”. However, as they are general by nature, they do not provide further guidance on how to do this. A **Commission Communication or Recommendation** could provide further guidance to the Member States and inform country-specific recommendations. However, it would not have any political ownership by the Member States, and would therefore be insufficient to incentivise the required reforms in the Member States.

The preferred instrument is a **proposal for a Council Recommendation**. A Council Recommendation would provide a common framework for action that could serve as basis for

¹⁶² In the PC, 69% agreed that a lack of instruments for an effective sharing of training costs between stakeholders is an obstacle to a higher training provision on labour markets. See Annex 14 for a discussion of cost sharing in the French CPF.

¹⁶³ See Annex 14 for an illustration of the rapid increase in CPF registrations during COVID 19 and a discussion of the use of top-ups to the CPF as part of the FR recovery strategy. About 30% of CPF trainings can be undertaken remotely/online, easing possible capacity constraints during periods of higher demand. Also in Singapore, top-ups to the personal accounts are part of the recovery strategy (Annex 13).

¹⁶⁴ [Council Decision \(EU\) 2020/1512](#) of 13 October 2020 on guidelines for the employment policies of the Member States.

subsequent analysis of reforms and progress. It would provide Member States with commonly agreed recommendations on a concrete tool that can help them to make the necessary progress towards the objectives of this initiative, with a view to implement the right to education, training and life-long learning from the European Pillar of Social Rights and make progress towards the ambitious 2030 EU headline target on training participation (Section 1). A Council Recommendation would be complementary to country-specific recommendations in the European Semester, as it would provide a commonly agreed framework for the implementation of recommendations that are well suited to a Member States' starting point. In the public consultation, 61%¹⁶⁵ of respondents agreed that the introduction of EU legislation to be adhered by Member States on a voluntary basis such as a Council Recommendation would be suitable to reach the objectives of this initiative.

7. HOW DO THE POLICY PACKAGES COMPARE?

Table 2 summarises the results of comparing the baseline scenario to the alternative packages A, B.1 and B.2, on the basis of the analysis from the previous Section.

Effectiveness

All packages are expected to support reforms in Member States to increase overall participation in training and reduce skills gaps compared to the baseline scenario. The increase in training participation is expected to be smallest under package A and greatest under package B.2.

Regarding the specific objective of closing support gaps, effectiveness is expected to be of medium strength for packages A and B.1. In package A, this is because of the expected small target group receiving training entitlements. In package B.1, the positive impacts of universal coverage are reduced by a risk of insufficient support for individuals who are in need of more fundamental reskilling. **Package B.2 is expected to have significant positive impacts** by supporting all adults with training entitlements while also envisaging additional support for individuals with additional training needs. Through personal accounts, packages B also reduce the fragmentation of support and the portability of training entitlements during professional transitions, and facilitate the cost-sharing among different funders of training entitlements.

With regards to increasing the incentives and motivation of individuals to take up training, the recommended individual entitlements, strengthened guidance, increased transparency about quality assured training offers, improved access to paid training leave and effective governance are expected to contribute to effectiveness across all packages. Impacts are expected to be **moderate under package A but significant under packages B.** This is because packages B allow for a greater tailoring of training to individual needs by allowing individuals to freely select among eligible opportunities and at the time that suits them best. Hence, packages B provide incentives to train also in situations that cannot be easily anticipated

¹⁶⁵ Ranging from 50% among businesses to 83% among NGOs and other respondents. Agreement was somewhat higher among respondents from Member States with currently low (71%) and medium (76%) adult learning participation than in those with relatively high participation (48%).

by policymakers for targeted support at the level of groups of adults¹⁶⁶ (e.g., a desire to learn new skills to prepare for a professional transition, or a sudden period of low economic activity and work intensity), and are expected to trigger a positive change in the overall approach of adults to learning.

Table 2: Comparison of the packages

Criterion	Policy package			
	Baseline	A	B.1	B.2
Effectiveness				
1. Close support gaps	0	++	++	+++
2. Increase incentives and motivation	0	++	+++	+++
Efficiency	0	+++	+++	+++
Coherence				
1. European Pillar of Social Rights	0	+	++	+++
2. Other EU objectives	0	+	++	+++

Note: For the purpose of comparing the impacts of the packages with the baseline scenario, a seven-stage qualitative grading scale is used: significant positive impact (+++), moderate (++), small (+), no impact (0), small negative impact/cost (-), moderate (--), significant (---).

Efficiency

Scenario analyses on the basis of the available evidence on the quantifiable impacts discussed above suggest that the **benefits of packages A and B would outweigh their costs**. The estimated ratio between benefits and costs is around 3 for most packages 5 years after implementation.¹⁶⁷ This is in line with the finding of significant increases in GDP (Annex 12C) and the evidence from other cost effectiveness calculations in the literature.¹⁶⁸ It highlights that the additional skills investments foreseen under all packages can support sustainable public finances, as additional costs can be paid for with higher tax revenues from and lower transfer

¹⁶⁶ See Cedefop (2021), [More perceptions: opinion survey on adult learning and continuing vocational education and training in Europe- Volume 2: Views of adults in Europe](#), for analysis suggesting that the complexity of decisions to train limits the effectiveness of *ex ante*-targeting at the level of groups of adults.

¹⁶⁷ These scenario analyses take into account the direct costs of training entitlements and administrative costs as well as subsequent benefits in terms of increased productivity and wages, see Annex 12B for details. Ratios for EU-27 range from 2.6 for when providing training entitlements to the unemployed to 3.8 for when providing entitlements to the entire adult population, and additional entitlements to the low-qualified.

¹⁶⁸ See for instance OECD (2019), [Returns to different forms of job related training](#).

spending on the beneficiaries of the training. Benefit-cost ratios are estimated to be somewhat higher in Member States with lower adult learning participation under the baseline scenario (due to lower expected deadweight loss) or lower costs of training, but above one for all Member States.¹⁶⁹

No clear differences between packages A and B concerning efficiency is identified in comparison to the baseline scenario: aiming at priority target groups can be expected to increase the efficiency of package A, as it is less likely that these groups would have been able to fund their training from private sources (lower deadweight). However, the smaller target group over which administrative fixed costs are spread and making prior guidance a condition for the mobilisation of entitlements can be expected to reduce the ratio of benefits to costs. There is no conclusive evidence on heterogeneity of the returns to training across groups of adults or returns to scale (Annex 10), and no evidence that giving individuals greater autonomy in their choice among quality assured and labour market relevant training opportunities under packages B reduces positive impacts or the ratio of benefits to costs (Annex 11).

Main impacts

All main impacts (social impacts, direct costs, other economic impacts and fundamental rights impacts) of the policy packages are expected to stem from resulting increases in adult learning participation, and are hence expected to be smallest under package A and greatest under package B.2. These main impacts are identified in Section 6.1.

Coherence

European Pillar of Social Rights (EPSR): All packages help to **make the first, fourth and fifth Pillar principles tangible for individuals**, whereby the strength of impacts is expected to be roughly proportional to the expected increase in training participation. By covering the entire adult population of working age, packages B.1 and B.2 are most fully in line with the principle 1, which states that “*everyone has the right to quality and inclusive education, training and life-long learning*”, while packages A and B.2 support best the implementation of principle 4 on active support to employment and principle 5 on equal treatment regarding working conditions. Hence, the impact of package A is the smallest and the impact of package B.2 is expected to be highest.

Other EU objectives: All packages are expected to stimulate reforms in the Member States that **contribute to the objectives of European VET policy¹⁷⁰ to promote a lifelong learning culture and make continuing training more learner-centred**, whereby impacts are stronger for packages B.1 and B.2 as these would recommend more significant departure from the baseline scenario in most Member States. The packages build on past DG EMPL initiatives

¹⁶⁹ Ranging from 1.3-1.9 for package A and 1.8-1.9 for package B in LU (depending on the choice of priority target group) to 3.8-6.5 for package A and 5.8-6.6 for package B in RO, cf. Annex 12B.4.

¹⁷⁰ See for instance the [Council Recommendation of 24 November 2020 on vocational education and training \(VET\)](#) for sustainable competitiveness, social fairness and resilience (2020/C 417/01), and the [Osnabrück Declaration](#) of 30 November 2020.

and evaluation results.¹⁷¹ They complement Commission objectives such as those of the Digital Education Action Plan¹⁷² by proposing concrete policy measures that support an **effective adaptation of education and training systems of EU Member States to the digital age**. Packages B outline a tool for implementing the European Parliament’s calls for a “*Skills Guarantee as a new right for everyone, at every stage of life, to acquire fundamental skills for the 21st century*”.¹⁷³

All packages are expected to **contribute to the green and digital transition**. The fundamental reorganisation of the EU economy required to reach the related EU objectives in this area such as climate neutrality by 2050 depends on significant increases in training participation: to equip the existing workforce with the necessary skills, and to ensure social fairness and continued public support. Since the impacts of the digital and green transitions are expected to be comprehensive yet heterogeneous across sectors, package A is likely to have small impacts due to the expected small target group, whereas the universal but modulated approach for support of package B.2 is expected to have the most significant impacts.

***Stakeholders’ views:* Respondents in the public consultation expressed clear support for the measures included in packages B over those of package A: 77%¹⁷⁴ agreed that all working-age adults should receive training entitlements as compared to 43%¹⁷⁵ agreement to a model corresponding to package A where only priority target groups receive training entitlements. There was also broad support for allowing individuals to select their training offer independently from the registry of eligible training opportunities, again implying support for packages B over package A.¹⁷⁶ A majority of respondents agreed that this initiative addresses relevant constraints to training and expected positive impacts, with particular strong agreement among Member States with lower participation rates.¹⁷⁷ A majority of respondents also expected positive impacts of the initiative, with particularly high agreement among citizens/individuals.¹⁷⁸**

¹⁷¹ See Annex 8.1 for an overview and discussion.

¹⁷² [Digital Education Action Plan \(2021-2027\)](#).

¹⁷³ [European Parliament resolution of 19 January 2017](#) on a European Pillar of Social Rights. Also see [European Parliament resolution of 17 December 2020](#) on a strong social Europe for Just Transitions, stating that the European Skills Agenda “*must guarantee the right to lifelong learning for all and in all areas*”.

¹⁷⁴ Ranging from 65% of businesses to 85% of citizens and of trade unions; a similar share (78%) stated agreement to the “universal, but differentiated” support model from package B.2.

¹⁷⁵ The highest agreement was among public authorities (58%, consistent with the small observed target groups in existing voucher schemes), but only 35% of businesses and 19% of trade unions agreed.

¹⁷⁶ 93% agreed to a model of free selection among eligible training opportunities, as compared to 31% to a model of prior guidance as precondition for the mobilisation of training entitlements.

¹⁷⁷ 91% of respondents from low participation countries agreed ILAs are effective at tackling financial constraints to participation as compared to 74% from high participation countries, and 86% of respondents from low participation countries expected positive impacts concerning secure and adaptable employment as compared to 63% from high participation countries.

¹⁷⁸ 92% of citizens agreed that the initiative could have impact on “improving access to secure and adaptable employment regardless of the type and duration of the employment relationship” and on “improving health and wellbeing”, compared to 75% of respondents overall.

Subsidiarity and proportionality

Both packages **respect subsidiarity by leaving decisions on key design parameters to the Member States**, notably decisions on the funding source, the amount of entitlements, priority target groups or eligible training opportunities. Packages B make the more specific recommendations to provide training entitlements to all working age adults and to set up personal accounts to ensure their transferability.

These recommendations can be considered **proportionate in light of the urgency of the challenge, reflected in Member States' ambition to increase adult learning participation levels significantly** by 2030 beyond levels that can reasonably be expected to be reached under the baseline scenario (see Section 5.1) or an initiative in a different form (such as a Commission Recommendation without buy-in by Member States). Specifically, the implementation scenarios presented in Section 6.1 show that the recommendation to provide support to all working age adults is proportionate to the Porto Declaration target¹⁷⁹ that at least 60% of all adults should participate in training every year by 2030: EU training participation would not be expected to reach 60% in 2030 with more narrow target groups for support.

They are also proportionate in view of Member States' **stated ambition to strengthen the provisions on individual training entitlements and ensure their transferability** during professional transitions (see Section 1). The recommendation to set up personal accounts for training entitlements is proportionate because such accounts allow to de-couple training entitlements from their original funder and give individuals full ownership over the entitlements, which is essential to ensure the transferability of entitlements. Personal accounts also facilitate flexible funding models with cost-sharing across different funders of training entitlements and modulated support by target groups, accommodating a wide range of possible national funding and implementation models.

8. PREFERRED POLICY PACKAGE

The preferred policy package is B.2, i.e. recommending Member States reforms to have in place **individual training entitlements for all working age adults** modulated according to selected target groups and in the form of personal accounts. Training entitlements and personal accounts are complemented by career guidance available for all, a public registry of recognised training opportunities, paid training leave provisions and effective governance for continuous improvements. It is the package that is expected to be most effective in reaching the objectives of the initiative with a high degree of efficiency and coherence with other EU policy objectives. The practical implications and expected impacts of package B.2 are summarised in Annex 3.

The elements of package B.2 are **compatible with the different starting points in terms of adult learning participation and support systems in the Member States**. Most Member States already have experiences with schemes providing individuals with training entitlements and relevant infrastructure, career guidance and paid training leave offers (Annex 8.2). The implementation of the recommendations is expected to increase their impacts on training participation by enhancing their efficiency and by overcoming problems deriving from

¹⁷⁹ [European Council Conclusions](#), 24-25 June 2021. This follows up on the [Porto Declaration](#) of 8 May 2021.

fragmentation, insufficient integration of the different elements of financial and non-financial support, or ineffective governance.

For countries where individual training entitlements are negotiated as part of collective bargaining, the **recommendations under package B.2 do not suggest a departure from well-established national funding models**. The recommended policy measures can instead be expected to strengthen the available non-financial support to facilitate an effective use of these entitlements by individuals, in addition to closing support gaps for those not benefiting from collective bargaining agreements.

9. HOW WILL ACTUAL IMPACTS BE MONITORED AND EVALUATED?

The Recommendation will invite Member States to work jointly with the Commission on fully exploiting and where necessary **improving the scope and relevance of the collection of data at Union level** concerning the investments in adult learning in national accounts and in public budgets, as well as further evidence on the factors influencing individuals' incentives and motivation to take up training.

The Commission will be invited to establish a **monitoring framework with agreed common quantitative and qualitative indicators** jointly with the EMCO, to assess the implementation of this Recommendation and enable its review. An initial proposal of operational objectives and corresponding indicators can be found in Annex 15 of this impact assessment.

Member States will be recommended to implement the principles set out in the Recommendation as soon as possible and **submit a plan setting out the corresponding measures to be taken at national level**. The progress made in the implementation of those plans should be discussed in the context of the multilateral surveillance of the European Semester in the EMCO.

The Commission will be invited to **assess and evaluate the progress made in the implementation of this Recommendation**, in cooperation with the Member States and after consulting the stakeholders concerned, and report to the Council within five years from the date of its adoption.

ANNEX 1: PROCEDURAL INFORMATION

1. Lead DG, Decide Planning/CWP references

Lead DG: Employment, Social Affairs and Inclusion.

Decide planning number: PLAN/2020/7916.

Commission Work Programme reference: Promoting our European Way of Life; initiative No. 36 b): Follow-up to the European Education Area and the updated Skills Agenda/ Individual learning accounts.¹⁸⁰

2. Organisation and timing

The preparation of the impact assessment was supported by the Inter-services Steering Group (ISG) to which the following DGs were invited: CNECT, EAC, ECFIN, ESTAT, GROW, JRC, JUST, LS, REFORM and SG. The ISG group met three times: on 15/06/2021, on 16/07/2021 and on 18/08/2021. The ISG also steered an external study supporting the Impact Assessment.

3. Consultation of the RSB

An “upstream” meeting with the RSB took place on 23 June 2021. The impact assessment report was submitted to the RSB on 1 September 2021, and discussed with DG EMPL in a meeting on 29 September 2021. On 1 October, the RSB issued a positive opinion with reservations.

The RSB reservations and the revisions introduced in response to them are summarised in the Table below:

RSB reservations	Changes done in the impact assessment
<p>(1) The report should discuss upfront the various existing EU legal instruments that target adult learning. It should map the gaps this initiative aims to fill.</p> <p>It should clarify to what extent it also addresses identified supply-side problems, such as the perceived lack of quality of training or insufficient tailoring of training to individual needs.</p>	<p>Sections 1 and 5.1 now clarify that the relevant existing EU policy initiatives focus mostly on the design of the provision of education and training for adults (the “supply side”), rather than on making this provision accessible to adults and encouraging them to use it (the “demand side”), referring to Annex 8.1 for an overview of relevant existing EU initiatives.</p> <p>Sections 1 and 5.1 clarify that this initiative aims to outline measures to integrate financial/demand side with non-financial/supply side support, tackling constraints to training participation in a comprehensive way and supporting the implementation of existing EU recommendations on the supply side of education and training. This includes issues concerning quality and the tailoring of training to individual needs, see the discussion of “coherence” in Section 7 of this report and the 2020 Council Recommendation on VET.</p>
<p>(2) The report should clearly establish the status of the 60% target of the Porto Declaration. It should briefly recall the rationale</p>	<p>Section 1 indicates that the 60% target from the the Porto Social Commitment reflects a broad consensus around the importance of significantly improving the opportunities for developing skills throughout working life to achieve the EU’s ambitions for the coming decade, also</p>

¹⁸⁰ See the Annexes to the [Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Commission Work Programme 2021, A Union of vitality in a world of fragility](#) (COM(2020) 690 final, Annex 1).

<p>and supporting evidence behind the target and explain how and why this target is used in the analysis (for example, as a benchmark across EU, Member States, sectors, etc).</p>	<p>given that training participation in the EU is not particularly high in international comparison (Annex 6.3.1). It explains that while the 60% target is established at EU level, a discussion of translating it into corresponding Member State-specific targets is ongoing within the Employment Committee.</p> <p>Section 4.1 clarifies that all initiatives from the European Skills Agenda support Member States in making progress towards the 60% target. Section 7 clarifies that predicted increases in adult learning participation serve as an indicator of effectiveness next to other considerations (such as fragmentation and transferability of support, and the tailoring of training to individual needs). Progress towards the Porto Social Commitment target is one of the considerations in the discussion of the proportionality of the policy options.</p>
<p>(3) The report should better explain how the baseline takes into account the existing EU and national policies.</p> <p>It should justify why the baseline scenario assumes that adult learning participation until 2030 stays on its trend growth observed between 2007 and 2016.</p> <p>It should better explain the rationale behind grouping the policy measures into two policy packages and clarify whether alternative packages have been explored.</p>	<p>The description of the baseline scenario in Section 5.1 now includes a summary of evidence on the implementation of existing EU initiatives and of related schemes included by some Member States in their Recovery and Resilience Plans (also see Annex 8.1).</p> <p>Section 5.1 clarifies that the drop in adult learning participation observed in 2020 due to COVID-19 restrictions is expected to be transitory, leading to the baseline scenario assumption of continued modest progress that is however not fast enough to reach the 2030 target and does not close existing inequalities in the access to training. Annex 8.3 presents further details on the extrapolation of trend growth in adult learning participation underlying the baseline scenario, indicating that increases have been close to linear between the 2007, 2011 and 2016 AES survey waves for the EU Member States without any statistical break across these waves.</p> <p>The discussion in Section 5.4 clarifies why the policy measures included in the two policy packages are coherent and mutually reinforcing, while at the same time highlighting the main trade-offs that emerge on the basis of the available evidence and the stakeholder views. Section 5.2 explains why a number of other policy measures have been discarded in view of the objectives of this initiative.</p>
<p>(4) The assessment of impacts includes a far-reaching macroeconomic analysis. However, the report should acknowledge the high level of uncertainty about the response to voluntary measures from Member States.</p> <p>It should identify any significant risks that may lead to the expected impacts not materialising, such as the availability of adequate funding for individual learning accounts.</p> <p>The report should better justify its finding that all options have equal benefit-to-cost ratios and how this</p>	<p>Section 6.1 now acknowledges that impacts will depend on the degree of implementation of the recommendations by Member States. It clarifies that the approach taken is to estimate impacts for selected implementation scenarios with clearly stated assumptions that have been derived from the available evidence.</p> <p>Section 6.1 now also highlights the importance of effective governance arrangements with constant monitoring and evaluation and suitable adjustments to the scheme for guiding Member States' implementation choices (cf. Section 5.3, policy measure 3.3). Annex 4 acknowledges the uncertainty about Member State's responses and degree of implementation. It outlines the approach taken to ensure that the analyses in this impact assessment provide useful input into decisions by policy makers while avoiding the risk of "circularity", whereby a Member State would not adopt a recommended measure on the basis of evidence of limited impacts from an impact assessment that already assumes this lack of adoption.</p>

<p>can be reconciled with possible different returns of training by target group or diminishing returns on training.</p>	<p>Section 7 better explains the finding of similar ratios of benefits to costs across the policy options: on the one hand, aiming at priority target groups can be expected to increase the efficiency of package A, as it is less likely that these groups would have been able to fund their training from private sources (lower deadweight). On the other hand, the smaller target group over which administrative fixed costs are spread and making prior guidance a condition for the mobilisation of entitlements can be expected to reduce the ratio of benefits to costs.</p> <p>Section 6.1.1 indicates that the conditions on quality assurance and labour market relevance for inclusion in the registry of recognised training opportunities and effective governance provisions are expected to ensure that average returns to training are in line with those found in the literature. The sensitivity analyses in Annex 12B.5 shows that results are robust to the assumption of diminishing returns to training. There is no conclusive evidence on heterogeneity of the returns to training across groups of adults or returns to scale (Annex 10), and no evidence that giving individuals greater autonomy in their choice among quality assured and labour market relevant training opportunities under packages B reduces positive impacts or the ratio of benefits to costs (Annex 11).</p>
<p>(5) Given that some of the proposed measures already exist in some Member States and the significant variations in participation rates, costs of training and funding structures, the report should explore impacts by Member State or groups of Member States, and explain which would be impacted the most.</p>	<p>Section 6.1 clarifies how the impact analysis considers Member State specific information quantitatively (concerning predicted participation levels under the baseline scenario and training costs) and qualitatively (concerning already existing relevant provisions). Section 7 indicates that benefit-cost ratios after 5 years are estimated to be above one for all Member States. Estimates are somewhat higher for Member States with lower adult learning participation under the baseline scenario (due to lower expected deadweight loss).</p>
<p>(6) The report should clarify how much flexibility would be given to Member States in deciding on the appropriate measures and whether it is necessary to specify the recommended measures on the basis of a preferred set of measures.</p> <p>It should indicate which measures will be recommended in the envisaged Council recommendation and which key design parameters will be left at the discretion of the Member States.</p>	<p>Section 7 clarifies that the preferred option respects subsidiarity by leaving Member States flexibility on key design parameters, notably the funding source, the amount of entitlements, priority target groups or eligible training opportunities. It clarifies that the more specific recommendations under the preferred policy package B.2 concerning target group (modulated support for entire adult population of working age) and delivery mode (personal accounts) are considered proportionate in view of the Member States' stated ambitions (Section 1) and the problem analysis (Section 2). In particular, the recommendation to set up personal accounts for training entitlements is proportionate because such accounts allow to de-couple training entitlements from their original funder and give individuals full ownership over the entitlements, which is essential to ensure the transferability of entitlements.</p> <p>Section 8 now recalls the specific recommendations to Member States envisaged under the preferred policy measure.</p>
<p>(7) The report should define what success would look like and what is expected to be achieved by the time of the evaluation of this initiative.</p>	<p>Section 9 indicates that the Commission will be invited to establish a monitoring framework with agreed common quantitative and qualitative indicators jointly with the EMCO, to assess the implementation of this Recommendation and enable its review. An initial proposal of operational</p>

	objectives and corresponding indicators for measuring success can be found in Annex 15.
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4. Evidence, sources and quality

The following evidence has fed into the Impact Assessment:

- External study “*Study to support the Commission explorations for a possible EU initiative on Individual Learning Accounts*” by Fondazione Giacomo Brodolini. The Terms of Reference for the external study and the reports were shared with the ISG.
- A validation workshop on the preliminary findings of the supporting study with national adult learning experts and representatives from Member States public authorities and social partners.
- Country reports by the network of independent national adult learning experts located in the EU Member States on the “*environment for providing direct financial incentives for adult learning to individuals*”. The IA also draws on substantive prior work of this network that has supported DG EMPL since 2016 as referenced in the footnotes.
- Results from the forthcoming update of the Cedefop “Financing adult learning database”, used for the analysis of existing provisions in the Member States in Annex 8.2.
- Literature review on “*The state of play of evidence about the conditions under which individual-oriented instruments for incentivising adult participation in learning are effective*” by Sarah Baiocco on behalf of the European Expert Network on Economics of Education.
- Policy brief and analytical report on “*Adult learning during Recessions in Europe*” by Giorgio Brunello and Marco Bertoni on behalf of the European Expert Network on Economics of Education.
- Analytical input by the European Commissions Joint Research Centre on forecasting adult learning participation for the baseline scenario by Federico Biagi, Giorgio Di Pietro and Zbigniew Karpiński.
- Study to determine the necessary basic features of ILA models for an efficient use of off-the-shelf tools and simplified cost options under the ESF+.
- Ad Hoc Report on the feasibility of ‘off-the-shelf’ tools for Individual Learning Accounts in the context of the external study “*‘Off-the-shelf’ solutions for post-2020: A study complementing the ESF+ impact assessment*” by PPMI.
- Targeted stakeholder consultations and a public consultation, as referred to in footnotes and summarized in Annex 2.
- Relevant literature and data as referred to in footnotes.

ANNEX 2: STAKEHOLDER CONSULTATIONS

1. Introduction

This synopsis outlines the consultations that were organised as part of the work on the initiative on individual learning accounts (ILAs) and presents their main findings in support of the impact assessment.

2. Consultation strategy

In line with the Better Regulation Guidelines wide stakeholder consultations were carried out. The mapping exercise identified the following groups of individuals or organisations:

- those having an interest in the matter (e.g. national public authorities, social partners, industry/businesses, training providers, NGOs)
- potential beneficiaries of an ILA (adults on the labour market)
- experts, e.g. researchers, consultancies and advisors, international organisations

The stakeholder consultation included targeted consultation events and the public consultation. Stakeholders could send comments on the Commission's inception impact assessment as well as provide written statements, in response to the targeted consultations and the public consultation.

Table A2.1: Overview of the stakeholders reached through each consultation tool/method

Type of stakeholder	High level forum	Targeted consultations	Public consultation	Validation workshop
General public	x		x	
National public authorities	x	x	x	x
Organisations representing regional and local authorities	x	x	x	
Social partners (business organisations and trade unions)	x	x	x	
NGOs	x	x	x	x
Education/training providers	x		x	
International organisations	x	x		
Researchers/academics	x		x	x

Eleven **targeted consultation events** were held, with different groups of stakeholders. The list includes the high-level forum on ILAs (nearly 800 participants from 48 countries) and the validation workshop focused on the problem and impact analysis (around 25 participants, mostly NGOs and public authorities).

Table A2.2: Targeted Consultations

Event	Date
High-level forum on ILAs	4/5.3.21
Social Partners (with presentations from trade unions and employer bodies)	15.4.21
Employment Committee (EMCO)	20.4.21
Committee of the Regions (SEDEC)	22.4.21
European Quality Assurance in vocational Education and training (EQAVET)	28.4.21
Public Employment Service (PES) Network	6.5.21
Advisory Committee for Vocational Training (ACVT) ¹⁸¹ / Directors General for Vocational Training (DGVT)	19.5.21
European Qualifications Framework and Europass Advisory Groups, the National Europass Centres, Euroguidance Centres, and European Qualifications Framework National Coordination Points	20.5.21
Validation workshop	9.6.21
European Economic and Social Committee (EESC)	1.7.21

The 12-week **public consultation** was launched by the European Commission on 23rd April through an online questionnaire (including both open-ended and closed questions) and completed on 16 July.

216 respondents replied to the consultation comprising **78 citizens, 26 public authorities, 46 business associations and enterprises, 26 trade unions** and **40 NGOs/other respondents**. The majority of answers came from Belgium (35), of which 23 belonged to EU-level organisations, followed by Italy (24). In addition, 38 unique written responses to the public consultation were received from selected stakeholders.

3. Inception Impact Assessment

The Inception Impact Assessment was available online for public feedback between 23 March 2021 and 20 April 2021. 23 contributions were received, mostly from trade unions (9), NGOs (5) and EU citizens (3). Almost half of the responses stressed the importance of designing ILAs

¹⁸¹ ACVT subsequently submitted a formal opinion on the EU initiative.

in conjunction with social partners, building on their knowledge. The quality assurance of training was also highlighted as were guidance and information. Almost half of the contributions stressed the importance of targeting vulnerable groups.

4. Targeted consultations

Problem definition

There was a general *over-arching agreement on the main challenges* (increasing transitions; automation, digitisation and decarbonisation; skill shortages etc.). Indeed, some stakeholders (including employers' organisations and trade unions) underlined the urgency of these challenges, from their 'on the ground' perspectives. There was a general view, and especially from practitioners (including employer organisations and trade unions) that the *Covid-19 pandemic was contributing to the acceleration of change* (especially digitisation).

Most trade unions and some academics and NGOs stressed that the underlying problem was the insufficient application of fundamental rights to participate in training across Member States and urged the Commission to focus on ways to ensure compliance with principles 1 and 4 of the European Pillar of Social Rights.¹⁸² A response from the European Trade Union Federation set out a 12-point plan to guarantee these rights across all Member States.

The general opinion of stakeholders on the barriers to training was that time was as important as finance. Trade unions in particular stressed the importance of employees being allowed to pursue training during work-time (reporting mixed experiences, especially the variances in the availability of paid training leave). There was also a general opinion across all stakeholder groups that a lack of information on training opportunities, and how to access them, was a barrier to participation. Those stakeholders with a particular involvement in training systems highlighted as a barrier the uncertainties (by potential trainees) as to the quality of training and its value in the labour market (dependent on recognised qualifications).

Policy options

The interest of the EU in promoting adult learning and *placing the individual at the centre through training entitlements*, was welcomed. In this respect, there was a general agreement amongst adult learning experts¹⁸³ that the ILA approach offered more opportunities than a voucher scheme to encourage lifelong learning and to improve employability. The majority of stakeholders (including social partners), and especially those from Member States with more advanced training systems e.g. Nordic countries, stressed the importance of integrating new initiatives with the existing national (or regional) training infrastructure, respecting the collective agreements for training already in place, normally involving employers, trade unions, and governments. Positive examples were given of *collective bargaining and agreements*.

¹⁸² European Commission (2017), [The European Pillar of Social Rights](#).

¹⁸³ During the validation workshop.

There was a general agreement that the *training focus of a new training entitlements initiative should be labour market oriented*. This was stressed in particular by employer organisations, while some experts and NGOs saw *ILAs as an opportunity to promote wider lifelong learning* including civic responsibilities and other citizenship skills.

The *target selection for a new training entitlement initiative* drew varied views. There was support for a universal approach, but also a concern that such an approach might favour the higher skilled and those better resourced to navigate the labour market, unless there were safeguards to avoid disadvantaging priority groups (e.g. low-qualified, unemployed etc.).

There was some support from trade unions for a focus on older workers and high skilled (e.g. in IT sector where the technologies rapidly develop) – the argument being that these groups were strongly affected by the changes at the labour market and by the digital transition.

Some trade unions felt whilst putting the individual at the centre was positive, the onus on the individual to anticipate and plan for employment transitions in the context of changing labour should not absolve employers and public authorities from their responsibilities.

There was a general consensus amongst stakeholders on the importance of:

- quality information, especially for low skilled groups; whilst websites and digital applications¹⁸⁴ were useful, they need to be accompanied by other outreach and other activities
- free and easily accessible guidance
- quality assurance and accredited training; they promote participation raising trust in training and its perceived value
- the validation of non-formal and informal learning
- social dialogue and the involvement of social partners in ILA governance

Impact

There was a general expectation that training entitlements could be one tool as part of a wider package of measures to motivate more adults to participate in learning and close gaps in training systems by incentivising individuals from priority groups. Additional skills training would lead to economic benefits. There was general agreement that impacts would be enhanced where entitlements are coordinated with free guidance, quality assured systems and accredited training.

5. Public Consultation

Problem Analysis

The direct (tuition fees) and indirect costs of training (including loss of income due to time taken up by training) were highlighted as *barriers to accessing training* respectively by 192

¹⁸⁴ Including a dedicated digital application for mobile phones and other devices (an example being the CPF, the French individual learning account).

89% and 176 82%.¹⁸⁵ There was also a high level of agreement that there was insufficient awareness of available financial support for training (187, 87%). Other barriers mentioned included poor accessibility to training opportunities in rural areas and a lack of access to IT.

Concerning *low motivation to train*, 175 respondents (82%, including 60 citizens) fully or somewhat¹⁸⁶ agreed that insufficient awareness of the benefits of training was a factor whilst 188 88% mentioned uncertainty about which skills were needed to improve employment and income prospects. 192 (89% – the highest response to this question) highlighted fragmented or insufficiently transparent information on available training opportunities, with 171 80% highlighting uncertainty of the quality of the training available. 177 82% agreed that uncertainty about whether training outcomes will be recognised by employers was a factor and 166 77% highlighted insufficient tailoring of training to individual needs. 189 88% agreed that a lack of time was a constraint with 178 83% agreeing that rigid time patterns of training provision was a factor.

When asked about *obstacles to higher level of training provision in the labour market*, 150 69% agreed that a lack of instruments to share training costs between companies, individuals and public authorities was a factor, 180 83% (including 34 enterprises/business associations) highlighted a lack of capacity within small, medium and micro businesses to organise training for their employees. 179 83% (including 65 citizens) thought that a lack of support to atypical workers was an obstacle.

Objectives and EU added value

Respondents were asked whether a *European initiative on ILAs could add value*. Respondents agreed that there could be added value related to:

- increased transparency about national training markets – 154 71%
- portability and recognition of training outcomes across Member States – 163 75%, 22 fully disagreed
- more efficient use of EU funds for skills development – 181 84%, 10 fully disagreed
- development of registries of quality assured training opportunities at the national level – 168 78%, 15 fully disagreed
- implementation of quality assurance for non-formal training opportunities – 168 78%, while 20 fully disagreed
- validation of non-formal and informal learning outcomes – 176 81%, 15 fully disagreed
- career guidance – 166 77%, 12 fully disagreed
- provision of paid educational leave and its take up by individuals – 167 77%, 15 fully disagreed

¹⁸⁵ All responses are based on N= 216 unless otherwise stated: 78 citizens, 26 public authorities, 46 enterprises and business associations, 26 trade unions and 40 NGOs and other respondents.

¹⁸⁶ Hereafter, ‘fully and somewhat agree are merged as ‘agreed’.

There was a general plea to avoid complexity and bureaucracy (also highlighted in position papers e.g. by employer organisations).

Policy efforts to support learning amongst adults were widely supported by respondents, with very few disagreements:

- short job-related training - 185 86%
- more fundamental job-related training - 195 91%
- basic, soft and inter-personal skills - 189 88%
- digital skills - 200 93%
- skills for green transitions - 198 92%

Support was less strong for non-job-related training: 158 73%

Entitlements and individual learning accounts (ILAs)

On *approaches for tackling financial constraints influencing participation in training*, the majority agreed with:

- establishment of ILAs – 182 84% (including 21 public authorities and 22 trade unions)
- establishment of training entitlements in other forms, such as vouchers -177 82%
- tax incentives for companies 188 87%
- subsidies to training and education providers - 148 68%
- increased overall public funding to support training - 189 88%
- facilitate the sharing of training costs between companies, public authorities and individuals - 167 77%

Motivation to participate in learning could be increased through:

- ILAs - 178 82%
- training entitlements in other forms, such as vouchers – 177 82%
- public registry of quality assured training opportunities - 185 86% (including 72 citizens and 38 NGOs)
- one-stop shop digital platform (e.g. smartphone app) linked to a registry of training opportunities - 189 88% (including 71 citizens, 34 enterprises and business associations)
- subsidies to education and training providers - 158 73%
- awareness raising campaigns - 190 88%
- in-person advice and guidance - 198 92%
- opportunities for the validation of informal and non-formal learning - 192 89%, (notably 37 NGOs)
- increased modularisation of training offers (e.g. creating opportunities for the certification of short courses) - 181 84%

Respondents agreed that *time constraints to participation in training* could be addressed through:

- ILAs – 135 63%, 24 fully disagreed
- training entitlements in other forms – 136 63%, 22 fully disagreed
- modularisation of training – 181 84%, 4 fully disagreed
- paid educational leave – 177 82%, 9 fully disagreed
- allowance to cover living costs -182 85%, 5 fully disagreed

On *universal, targeted or mixed approaches to individual training entitlements*, 166 77% agreed in a universal approach open to all working age adults (15 fully disagreed), with 168 78% for a universal approach combining a greater level of entitlement to those with particular training needs. 92 43% agreed to targeted support only for those individuals with particular training needs¹⁸⁷, but more respondents (111 52%) somewhat or fully disagreed.¹⁸⁸ The position papers also reflected the debate between universal and targeted entitlements, with concerns that universal schemes could widen gaps in the labour market, benefiting those with higher skills, and excluding vulnerable groups without the resources and knowledge to access training systems, whereas others arguing that access to training was a fundamental right for the benefit of all citizens.

On the *rules for spending training entitlements*, 191 88% agreed that there should be a free selection by individuals from the registry of eligible training offers and that training should be allowed to take place during working hours with the agreement of the employer. Only 83 38% agreed that there should be a requirement for training to take place outside of working hours, and only 77 35% agreed that individuals should have to follow compulsory guidance on the selection of training (with 118 55% somewhat or fully disagreeing).

In respect of sources to *increase funding for training*, there was broad agreement on the use of public funding by Member States (197, 91%). 147 (68% including 24 trade unions) agreed with an employer's levy (with 31 fully disagreed) and 115 53% agreed with individual contributions, but 85 (including 22 trade unions and 24 citizens) somewhat or fully disagreed.

111 80% agreed that *strengthening monitoring and exchange of experience* would be effective in increasing the uptake in training. 84 61% agreed that the initiative should be promoted via an *instrument on a voluntary basis* (such as a Council Recommendation but with countries deciding what and how to implement the recommendation), 43 31% somewhat or fully disagreed. 61 44% agreed that there should be no additional instrument/ that the existing EU-level framework is sufficient, but slightly more respondents (64 46%) somewhat or fully disagreed. Position papers from employer representative organisations and trade unions argued for a role in the development and governance of any new initiatives, given their experience in developing collective agreements.

¹⁸⁷ Examples given were atypical workers, the unemployed, the low qualified and those in industries undergoing structural change.

¹⁸⁸ The remaining 6% answered 'don't know'.

Impact

The consultation asked whether *impacts related to fundamental and social rights* could result from an ILA initiative. The majority of respondents thought that ILA could:

- improve access to secure and adaptable employment – 162 75%
- improve health and well-being – 161 75%
- promote active citizenship – 141 65%
- make it easier for individuals to manage labour market conditions – 179 83%
- improve employment prospects for the unemployed – 174 81%
- help tackle discrimination in respect of access to training, employment and career progression - 162 75%

A second question focused on *labour market and economic impacts*. Lower majorities fully or somewhat agreed that the initiative could:

- support labour mobility - 143 66% with 54 in somewhat or full disagreement
- reduce skills gaps and mismatches – 172 80%
- improve productivity and company competitiveness – 167 77%
- support efficient reallocation of labour – 164 76%

Finally, on *societal and environmental benefits* 174 81% agreed that the initiative could support green and digital transitions by offering the relevant skills whilst 147 68% agreed that cohesion in society could be improved. These generally positive views are reflected in many of the position papers (from NGOs, employer organisations and trade unions) but with the caveat that implementation is critical, as ILAs need to be developed in conjunction with national training systems supporting existing arrangements.

ANNEX 3: WHO IS AFFECTED AND HOW?

1. Practical implications of the initiative

If this initiative is adopted, its key obligations will apply for the Member States' public authorities. Public authorities will have to consider policy and/or legislative changes to:

- (a) set up governance arrangements to determine the amount and modulation of training entitlements (for all working age adults and with higher amounts of entitlements for target groups with particular training needs) in the form of personal accounts, as well as corresponding funding arrangements;
- (b) set up the public registry of recognised training, validation and career guidance opportunities;
- (c) ensure career guidance are available for all working age adults;
- (d) introduce or reassess paid training leave provisions and their integration with the other support measures.

Changes should consider inclusive digital solutions taking into account needs of person with disabilities or less digitally skilled persons. Training providers who want to receive funding from training entitlements will need to ensure that their training offers meet the requirements to be included in the public registry of recognised training, validation and career guidance opportunities. For enterprises or individuals, additional obligations may result depending on the funding arrangements chosen by public authorities.

2. Summary of costs and benefits

Table A3.1: Overview of benefits - preferred option

<i>1. Overview of Benefits (total for all provisions) – Preferred Option</i>		
<i>Description</i>	<i>Amount</i>	<i>Comments</i>
<i>Direct benefits</i>		

Higher adult learning participation.	Estimated increase of EU-27 participation rate by 14.2-15.3 percentage points (ppts) by 2030, corresponding to an additional 34.0-36.6 million adult learners per year compared to the baseline scenario and a participation rate of 62.8-63.9%.	For individuals and depending on the modulation of support. See Section 6.1.1 and Annex 12A for details and sensitivity checks on these scenario analyses.
Reduced inequalities in access to training among groups of adults.		The reduced inequalities in access to training also translate into reduced inequalities in participation rates, except for groups with significantly lower take up rates for training entitlements. See Section 6.1.1 for a discussion and Annex 12A for details and examples.
Reduced inequalities/ upward convergence in adult learning participation across EU Member States.	Estimated increase of adult learning participation by 11.5-12.8 ppts in the Member State with the highest participation rate under the baseline scenario (SE), compared to 17.8-19.5 ppts in the Member State with the lowest (RO), for a reduction in the participation gap by 6.3-6.7 ppts compared to the baseline scenario.	For EU as a whole and depending on the modulation of support. See Section 6.1.1 and Annex 12A for details.
Higher wages.	1% after 30 hours of training. Estimated EU-27 increase in annual earnings by employed participants by €5.7-9.4 billion per year.	For individuals, see Section 6.1.1. See Annex 12B for the estimation of EU-27 earning increases and sensitivity checks. Increases depend on the modulation of support.

Higher employment.	2.5 percentage points after 30 hours of training for those out of employment. Estimated EU-27 increase in employment by 0.2-0.4 million adults in the year after introduction of the policy package.	For individuals, see Section 6.1.1. See Annex 12B for the estimation of EU-27 employment increases and sensitivity checks. Increases depend on the modulation of support. See «indirect benefits» below for long-run general equilibrium estimates of employment effects.
Improved working conditions and social dialogue.		For individuals and enterprises. Not possible to quantify, see Section 6.1.1 for a discussion.
Higher quality and transparency of the training market.		For individuals and enterprises, in particular SMEs. Not possible to quantify, see Section 6.1.1 for a discussion.
Higher productivity of workers and competitiveness of their employer.	2% after 30 hours of training. Estimated EU-27 increase in annual productivity of €11.5-18.6 billion per year.	For enterprises, see Section 6.1.2. See Annex 12B for the estimation of EU-27 productivity increases and sensitivity checks. Increases depend on the modulation of support.
<i>Indirect benefits</i>		
Improved health and well-being.		For individuals. Not possible to quantify, see Section 6.1.1 for a discussion.
Lower cost of training resulting from more transparency and competition.		For the funder of training. Not possible to quantify, see Section 6.1.2 for a discussion.

Higher civic participation and social cohesion.		For society as a whole. Not possible to quantify, see Section 6.1.1 for a discussion.
Increased tax revenue and lower spending on unemployment benefits and healthcare.	Increased EU-27 annual tax revenue by €7.1-9.6 billion per year. Lower benefit expenditure by €2.5-4.5 billion per year.	For public authorities, see Section 6.1.2. See Annex 12B for the estimation of increases in EU-27 tax revenue and unemployment benefits savings. Increases depend on the modulation of support. Healthcare expenditure savings not possible to quantify.
More successful technology diffusion, business growth and labour market transitions, supporting the digital and green transitions.		For society as a whole. Not possible to quantify, see Section 6.1.2 for a discussion.
Higher long-run levels of GDP and employment.	Increase of EU-27 GDP by 0.99% by 2030 and 1.4% by 2040. Increase of employment rate by 0.06 ppts by 2030 and 0.18 ppts by 2040 (corresponding to 0.14-0.4 million additional jobs).	For society as a whole and for a low-qualified as a priority target group. See Section 6.1.2 and Annex 12C for details and sensitivity checks.
Macroeconomic stabilisation by facilitating skills investments during downturns.		For society as a whole. Not possible to quantify, see Section 6.1.2 for a discussion.

Table A3.2: Overview of costs - Preferred option

II. Overview of costs – Preferred option							
		Citizens		Enterprises		Public authorities	
		One-off	Recurrent	One-off	Recurrent	One-off	Recurrent
Action (a) Individual training entitlements in personal accounts and related governance arrangements	Direct costs	-	Depends on funding arrangement.	-	Depends on funding arrangement.	Possible set-up costs.	Scenario analyses estimate annual costs for EU-27 between €17.6-24.5 billion. See Section 6.1.1 and Annex 12B.
	Indirect costs	-	Inability to earn income during periods of training-however, incurred voluntarily by individuals making use of their training entitlements, and only for those not benefitting from paid training leave provisions.	-	Staff absence during training (with permission of employer). Estimated at around € 4.7 billion if half of those using their training entitlements do so during working hours. See Annex 12B.	-	Administrative costs assumed to be 8% of direct costs in cost-benefit analyses, corresponding to €1.4-2.0 billion. See Annex 12B.
Action (b) Public registry of	Direct costs	-	-	For training providers:	Costs of compliance with criteria for quality and labour market relevance of	Possible set-up costs. May	Maintenance costs are included in the estimate of administrative costs for training entitlements (a).

recognised training, validation and career guidance opportunities				Costs of certification of offers for inclusion in the registry.	offers required for inclusion in the registry.	be limited in 12 MS where similar registries already exist.	
	Indirect costs	-	-	-	-	-	Costs from increasing use of public guidance and validation opportunities.
Action (c) Making career guidance available to all	Direct costs	-	-	-	-	Possible set-up costs. May be limited as public career guidance already exist in 25 MS to some extent.	Costs from increasing use of career guidance services.
	Indirect costs	-	-	-	-	-	-
Action (d)	Direct costs	-	-	-	Staff absence during training. If revisiting of national paid training leave	-	Costs of public support for enterprises granting paid training leave (<i>in particular SMEs</i>),

Paid training leave					arrangements leads to an upward convergence of annual take-up rates of paid training leave arrangements to 5% (<i>corresponding to the highest currently observed take-up rates</i>), annual estimated costs are €3.5-5.9 billion for a 30-50 hour leave. ¹⁸⁹ See Annex 12B. Costs for enterprises are lower to the extent public co-funding is available.		depending on the funding arrangement.
Indirect costs	-	-	-	-	-	-	-

3. Summary of the SME test

Table A3.3: The "SME test"- summary of results

(1) Identification of affected enterprises

¹⁸⁹ Since no comprehensive data on existing expenditure for paid training leave in the Member States are available on which a cost estimate for the baseline scenario could be based, the corresponding estimates in this table provide estimates of total costs. Additional costs relative to the baseline scenario are hence likely to be lower in view of existing costs under the baseline scenario. However, the difference is expected to be small in view of the low effective outreach of most existing schemes (Section 2).

Workers in SMEs and in particular micro-enterprises currently participate less in learning than those in large companies (42% and 35.6% respectively vs. 55.1%). SMEs are often at a disadvantage compared to larger companies when it comes to supporting the continuing skills development of their staff as they have less resources available to:

- (a) support their staff with training selection and funding;
- (b) identify or design training programmes tailored to their needs;
- (c) compensate for temporary absence of staff during training (see Section 2 and Annex 7).

This makes them more vulnerable to skills shortages and puts them at a competitive disadvantage compared to large enterprises.

(2) Consultations capturing the SME angle

In the public consultation, 83% of respondents agreed that a lack of capacity by small, medium and micro-enterprises to organize training for their employees is an obstacle to a higher training provision on the labour market.¹⁹⁰

SMEs have been also consulted directly through the public consultation and in targeted consultations. SMEunited, the association of crafts and SMEs in Europe, contributed with a joint paper with Business Europe and SGI Europe¹⁹¹ (submitted during the targeted consultations) and a separate position paper to the public consultation, and additional contributions have been received by national SME representatives. During the consultations, SME representatives emphasised in particular the need to ensure the labour market relevance of training to ensure efficient spending. In its public consultation position paper, SME United¹⁹² stressed that the training offers need to be designed around the needs of companies, especially SMEs. Enabling factors need to accompany the training provision (e.g. guidance services and quality assurance). Some groups (e.g. long-term unemployed, low skilled) will require additional support to reintegrate into the labour market. For more on the consultations, see Annex 2 and the references throughout this report.

(3) Measurement of the impact on SMEs

¹⁹⁰ Ranging from 74% of businesses to 96% of public authorities.

¹⁹¹ SMEunited, Business Europe, SGI Europe, Employers' input to an ACVT opinion on a future EU initiative aiming to improve/boost training provision across Europe (submitted within the targeted consultations).

¹⁹² SMEunited, response to PC on ILAs and micro-credentials.

Overall, SMEs and micro-enterprises are expected to gain in particular from the support for training provided to individuals under the preferred policy option. Expected impacts are:

- (a) improved access of SME workers to training even if there is limited capacity by their employer to fund or organize it;
- (b) increased transparency about the quality of training offers from the public registry, facilitating own staff skill development efforts by SMEs;
- (c) increased public financial support for SMEs granting their staff paid training leave, resulting from the recommendation to take into account SME needs when revisiting existing provisions.

SME staff is also a possible priority target group for additional support under the preferred policy option (to be decided by Member States).

(4) Mitigating measures

Strengthened provisions on paid training leave or increasing uptake of it resulting from the initiative could be particularly challenging for SMEs. This is why the preferred policy option recommends to Member States to consider in particular SMEs in their assessment of public support for paid training leave, to avoid or mitigate any adverse impacts from paid training leave on SMEs.

ANNEX 4: ANALYTICAL METHODS

This impact assessment draws on a variety of quantitative and qualitative methods and data sources, (Annex 1). Stakeholder opinions have been captured via extensive targeted consultations and a Public Consultation, which closed on 16 July 2021 (Annex 2). Overall, care has been taken to validate information via triangulation from different sources and reflect minority opinions.

As set out in Section 6, the report assesses social impacts (including participation in adult learning, wages, employment, working conditions and social dialogue, health and well-being etc.), economic impacts (including the costs and benefits for individuals, education and training providers, enterprises, public authorities, as well as the wider impacts on the economy in terms of GDP for instance) and the impact on fundamental rights. This integrated approach covering both the micro- and macroeconomic perspectives requires a combination of quantitative and qualitative assessments.

In this annex, we outline: 1) the quantification of impacts; 2) qualitative approaches and 3) constraints to the assessment of impacts and how they have been addressed.

1. Quantification of impacts

The quantitative assessment of this impact assessment consists of three parts:

- an assessment of the **impact on participation rates**, which feeds into Section 6.1.1. on social impacts, and in turn provides the basis for the cost-benefit analysis and macroeconomic assessments described below;
- a **cost-benefit analysis** which feeds into Section 6.1.2 on economic impacts and contributes to the assessment of efficiency of the packages in Section 7;
- a **macroeconomic assessment of the impacts on output and employment**, which feeds into Section 6.1.2 on economic impacts and also contributes to the assessment of efficiency of the packages in Section 7.

First an assessment is made **of the impact of providing training entitlements on levels of participation in training** (Annex 12A). The aim here is to estimate the impact of training entitlements on training participation, bearing in mind that not all people who receive training entitlements will use them (take up) and that some people who use their training entitlements might have trained in any case without the entitlement (deadweight loss). The estimates of take-up and deadweight loss have been taken from experiences with past schemes giving training entitlements to adults. The selection gives preference to a small number of experimental studies (see “constraints” for an explanation), while placing them in the broader context of experiences from larger-scale schemes.

The approach to estimating impacts on training participation for packages A and B.2 (where it is up to Member States to select priority target groups for training entitlements) is to present estimates for a range of plausible priority target groups, selected on the basis of the problem analysis (Section 2). Impacts are estimated for the reference year 2030 by applying the take-up and deadweight rates identified. 2030 is chosen so as to leave sufficient time for impacts to

materialise and to allow for a comparison of impacts to the 2030 EU targets on adult learning participation. Impacts are assessed relative to the baseline scenario, factoring in expected baseline changes in training participation rates (Annex 8.3) and population changes (derived from Eurostat projections of population change to 2030). The estimates presented in the main report are based on “middle ground” estimates on the key parameters (take-up and deadweight loss), and Annex 12A also presents **sensitivity checks** for reasonable “pessimistic” and “optimistic” values on both parameters.

The analysis of likely impacts on participation rates then feeds into the **cost-benefit analysis (CBA)** of the policy packages (Annex 12B). The CBA estimates the short to medium term costs and benefits of the policy packages on individuals, employers and public authorities. Key costs are the direct costs of training entitlements, administrative costs and the costs of devoting time for training, while key benefits concern higher productivity and wages as well as higher tax revenues for public authorities and savings on social benefits resulting from positive employment impacts. Overall estimated ratios of benefits to costs are derived on the basis of the participation rate estimates from Annex 12A, relevant estimates from the literature and Eurostat data. A limitation of these estimates is that they are of a “partial equilibrium” nature, i.e. they do not take into account some more complex impacts that are likely to affect GDP and employment levels in the longer run.

Macroeconomic modelling using the BeTa model (see Annex 12C) is hence used to complement the cost-benefit analysis. It is able to control for the complex economic interactions which might result from, for example, impacts of additional taxes used to fund the training entitlements and automation in response to higher productivity. In looking at the benefits of training it is also able to capture the wider impacts and is not limited to quantifying the impact on those directly affected by the entitlements (i.e. it is able to capture various externalities). Accordingly, the BeTa model is able to estimate how increased levels of participation in training might affect output and employment by adjusting the stock of human capital available to an economy, and the impact this may have on the efficiency with which people are matched to available jobs. As a forecasting model, it is able to provide an assessment of medium to long-effects on output and employment, providing impact estimates for 2030 but also extending them to 2040.

2. Qualitative methods

While the quantification of impacts is primarily used to support Sections 6 and 7, qualitative methods were used throughout the impact assessment to support the problem definition, the definition of policy measures as well as to assess the impacts of the policy packages, in particular the social impacts and the impacts on fundamental rights, in addition to the economic impacts, where quantitative data is limited.

An in-depth systematic **literature review** was implemented in order to collect detailed and comprehensive evidence about the main problems and issues as well as the effects of different training schemes and interventions.

Seven **case studies** were conducted (see Annex 13) with the objective of (i) gaining a better understanding of the context (socio-economic and policy framework) in which financial

instruments for adult learning are being implemented in selected Member States, (ii) identifying recent and relevant policy initiatives as well as “lessons learned” that could inspire other Member States, and (iii) explore the working mechanism for such policy instruments and their potential to respond to specific contextual challenges and policy problems. Country experts were engaged to collect the required information and institutional stakeholders’ opinion. In selecting the Member States, a set of criteria was adopted to ensure geographical representativity at the EU level and reflect other dimensions such as heterogeneity of adult learning systems and good coverage of the EU population but also relevant international experiences.

In addition, an in-depth **analysis of the French Compte Personnel de Formation** was carried out (see Annex 14). The development and dynamic adjustments of the French scheme in response to experiences made represents an interesting example in particular to assess the costs and benefits of personal accounts for training entitlements.

The outcome of the **consultations of experts and stakeholders** also contributed to the qualitative analysis in the report, as described in Annexes 1 and 2.

3. Constraints

Since this impact assessment supports a non-binding proposal for a Council Recommendation, a first challenge is **uncertainty about Member State’s responses and degree of implementation**. The approach taken in the context of this impact assessment is to estimate impacts on the basis of clearly stated assumptions derived from the available evidence. These estimates hence do not attempt to estimate the *output* of the relevant political processes in the Member States after the adoption of a Council Recommendation (e.g. by scaling down impacts according to some estimate of partial non-implementation), in order to provide useful and independent *input* into these processes. This approach avoids the risk of “circularity”, whereby a Member State would not adopt a recommended measure on the basis of evidence of limited impacts from an impact assessment that already assumes this lack of adoption.

The assessment of impacts faced additional challenges related to limited availability of **quantitative data** on which to base estimates:

- Experimental data is needed for a rigorous identification of the key parameters of interest, as observational data does not allow to observe deadweight loss (due to self-selection of motivated individuals into the scheme) and often also does not provide good evidence on take up rates (as existing schemes are often targeted at specific groups). Therefore, the quantification draws on evidence from a limited set of field experiments, in particular a voucher experiment that assigned training entitlements to a randomly subset of the entire Swiss adult population, which allows for a rigorous assessment of take-up and deadweight loss.¹⁹³
- Estimates of deadweight loss are often not able to factor in impacts of training entitlements on the intensity of training in response to receiving training entitlements

¹⁹³ See Schwerdt et al. (2012), [The impact of an adult education voucher program: Evidence from a randomized field experiment](#). Journal of Public Economics.

or future training intentions (i.e., individuals would have undertaken some training even in the absence of entitlements, but train longer or more frequently over a certain period thanks to entitlements), leading to an over-estimation of deadweight loss.

- There is some uncertainty in the literature as to whether returns to training are constant, increasing or decreasing (Annex 11), and this matters in particular for the estimates of long-run impacts in the BeTa model (Annex 12).
- Relatively little data is available on *interactions* between different policy measures, e.g. the impacts of training entitlements in the presence of strengthened guidance of paid training leave provisions and vice versa.
- Availability of data on costs (set-up and operational) is limited, and where these data are available they tend to reveal wide variation across countries and there is always a degree of uncertainty as to whether like is being compared with like.
- The benefits of wider benefits of adult learning (on job and life satisfaction, health etc.) and on some policy measures (e.g. paid training leave) are difficult to quantify, and large parts of the evidence base are of a correlational nature.

The following steps have been taken in this impact assessment to **address these constraints**:

- Deadweight loss estimates have been adjusted to ensure that deadweight estimates reflect differing levels of training participation in the Member States as explained in Annex 12A.
- Annex 11 situates these assumptions in the broader literature. Sensitivity checks on the key parameters are conducted throughout Annex 12, to show the robustness of key results to alternative assumptions concerning take-up rates and deadweight loss, wage and employment impacts and administrative costs. In the BeTa model, decreasing returns to scale have been selected as a cautious benchmark assumption for long-run impacts of higher training participation.
- Wider expected benefits of increased participation of adults in learning are not quantified but discussed qualitatively.

More generally, **qualitative data** has been drawn upon in order to provide a more holistic analysis of the likely additionality resulting from the introduction of a training entitlement and capture some of the costs and benefits where quantitative data are limited. There are constraints from using these data too, including:

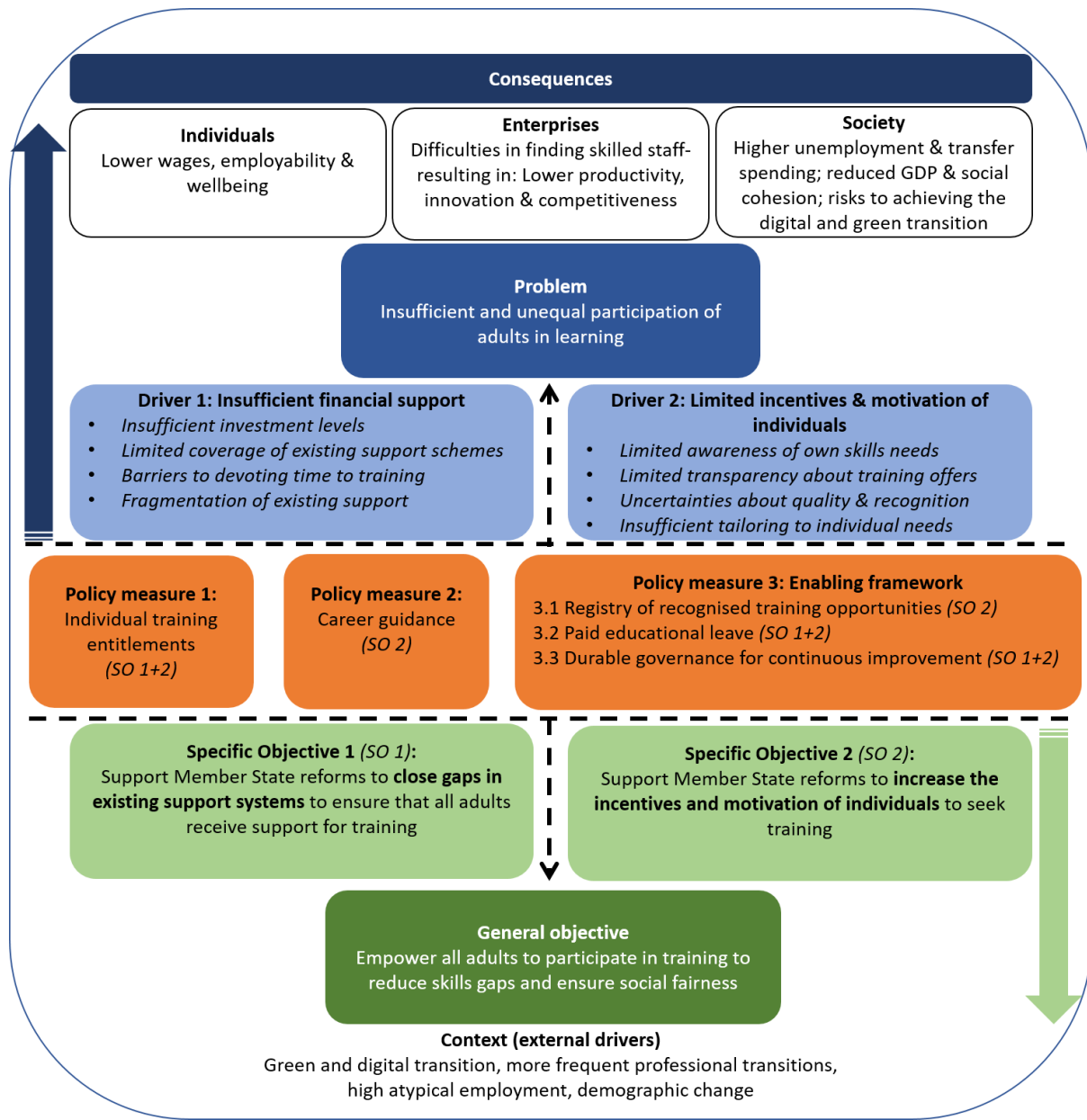
- Questions about the representativeness of such data (e.g. adult learning experts may have a tendency to favour greater expenditure on adult learning);
- The comparability of data across countries given the highly specific nature of some of the more qualitative inquiries.

This impact assessment recognizes these constraints and addresses them to the extent possible by triangulating information from different sources to increase the robustness of conclusions, e.g. by providing expert assessments next to survey evidence and stakeholder views. The constraints are further recognised in the design of the policy options, which include a

recommendation of constant monitoring and evaluation of the success of the policy measures in reaching the objectives of the initiative in order to allow for appropriate adjustments to them where necessary (measure 3.3).

ANNEX 5: OVERVIEW OF THE INTERVENTION LOGIC

Figure A5.1 – Intervention logic



ANNEX 6: ADULT LEARNING: MEASUREMENT, KEY CHARACTERISTICS AND PARTICIPATION LEVELS

1. Measurement

For the purpose of EU-level benchmarking, adult learning is measured as **participation in formal or non-formal learning among adults aged 25-64 during the past 12 months**.¹⁹⁴ This is also the definition used for monitoring progress towards the EU's 2030 target that at least 60% of adults should participate in training every year by 2030 (Section 1).

Formal learning is characterised by an official recognition of the learning outcome by public authorities (such as a University diploma). Non-formal learning aims to improve knowledge and skills in any areas in an institutionalised setting and may take the form of courses, workshops or private lessons, sometimes resulting in credentials and certificates that are recognised by employers. It excludes informal learning (such as learning from a friend, colleague, book, guided tour or library visit).¹⁹⁵ **Non-formal learning is much more prevalent among adults than formal learning:** in 2016 (the most recent year with available data), 34.8% of adults participated in non-formal learning, compared to only 5.0% for formal learning.

The three **main EU statistical data sources on adult learning** are the **Labour Force Survey (LFS)**, the **Adult Education Survey (AES)** and the **Continuing Vocational Training Survey (CVTS)** on training provision by enterprises.

The **LFS** provides annual data on adult learning participation during the last 4 weeks, which has been used to monitor progress towards the 15% participation target by 2020 set out as part of the strategic framework for European cooperation in education and training ("ET 2020").¹⁹⁶ However, the short reference period is considered sub-optimal for a comprehensive measurement of the short learning periods that are characteristic of adult learning.¹⁹⁷ Therefore, the LFS will also measure adult learning participation during the last 12 months every second year starting in 2022¹⁹⁸, which will be available to monitor progress towards the EU's 2030 target (Section 1).

The **AES** collects more detailed information on adult learning than the LFS, however at a lower frequency: the most recent available data are for 2016, and further data are available for 2011 and 2007 (with limited comparability between the 2007 "pilot survey" and the subsequent survey waves). It uses a 12 months reference period. The coverage of non-formal learning activities in the AES is slightly broader than in the LFS as it includes "guided on the job training", which is closer to informal learning than the other types of non-formal learning

¹⁹⁴ See the [European Skills Agenda](#) for sustainable competitiveness, social fairness and resilience of 1 July 2020.

¹⁹⁵ Eurostat (2016). [Classification of learning activities \(CLA\): Manual](#).

¹⁹⁶ [Council conclusions of 12 May 2009 on a strategic framework for European cooperation in education and training \('ET 2020'\)](#) (2009/C 119/02).

¹⁹⁷ See European Commission (2020), [Towards an improved adult learning monitoring framework: Revisiting the available data and indicators](#), for a discussion.

¹⁹⁸ European Commission (2020), [Education and Training Monitor 2020](#).

activities and not included in the EU benchmarking framework. Most **adult learning participation data presented throughout this impact assessment are hence taken from the 2016 AES**, adjusted to correspond to the definition of adult learning used for EU benchmarking by excluding guided on the job training.¹⁹⁹

The CVTS complements the individual-level survey data from LFS and AES with information on enterprises' training needs, planning, provision and financing from the perspective of enterprises. The results of the fifth and latest wave of CVTS are available for the reference year 2015.

2. Key characteristics

The AES allows for a characterisation of adult learning in terms of its **purpose, duration, providers and funders**.²⁰⁰

Purpose: Concerning the purpose of adult learning, AES asks participants of non-formal learning activities whether these activities have been “mainly job-related” or “mainly personal/non-job related”.²⁰¹ **About 80% of non-formal learning in the EU was mainly job-related**, a pattern that is consistent across EU Member States for both men and women, with somewhat higher shares for men (85%) as compared to women (76%). An analysis of the instruction hours spent by field of study reveals that about one fifth (18%) of adult learning in the EU concerned business, administration and law, followed by services (16%), and health and welfare (14%), arts and humanities (14%), engineering, manufacturing and construction (12%) and information and communication technologies (6%).

Duration: An average adult learning activity was **118 hours** in 2016, with a considerably shorter average duration of non-formal (75 hours) as compared to formal (469 hours) learning activities (and an average closer to the duration of non-formal learning activities due to the small share of formal learning in overall adult learning). The average duration noticeable **decreased compared to 2007** when it was 134 hours.²⁰² This decrease may reflect a move towards more frequent but shorter learning activities facilitated by digital learning offers, consistent also with the overall modest increase in participation rates over this period (Section 2.4).

Providers: Formal learning is provided by Universities, VET schools or similar publicly recognised institutions. The main provider of non-formal education are employers (35%),

¹⁹⁹ This leads to differences between the AES participation data reported in this impact assessment to the [published data by Eurostat](#): for instance, excluding guided on the job training reduces EU-27 participation in 2016 from 43.7% to 37.4%. The data excluding guided on the job training can be found [here](#).

²⁰⁰ The figures in this section are based on European Commission (2020), [Adult learning statistical synthesis report](#) and Eurostat statistics explained: [Adult learning statistics - characteristics of education and training](#) and refer to the year 2016.

²⁰¹ No corresponding question is asked for formal learning activities, or in the LFS. Starting in 2022, the LFS will also ask for whether non-formal learning has been undertaken for mainly personal or professional reasons.

²⁰² All respondents that indicated to have participate in education or training in the last 12 months were asked to specify the total number of instruction hours for the most recent formal education or training activity. The presented average is an aggregated of all these responses at the EU level.

followed by non-formal education and training institutions (18%). All the other types of providers, from commercial institutions to non-profit associations, from trade unions to formal education institutions, etc. constitute a mosaic of providers of adult education, with none of them amounting to more than 10%.

Funders: It is common for adults to pay for the costs of formal learning themselves (55%). Non-formal learning activities are often for free (23%) or fully paid by someone else (53%). **88% of job related non-formal learning activities were at least partially funded by the employer.**²⁰³

3. Participation levels and differences between groups

3.1 Progress in adult learning participation towards EU-level targets

Progress in participation in adult learning over the last decade has been limited and uneven across EU Member States; the EU-level target of 15% (of adults participating in the 4 weeks reference period) was not met in 21 of 27 EU Member States in 2020 and reached 9.2% overall, compared to 7.8% in 2010 (see Figure A6.1).²⁰⁴ In nine Member States, the participation rate even decreased over the last 10 years (DK, AT, ES, SI, CZ, CY, PL, SK, RO).

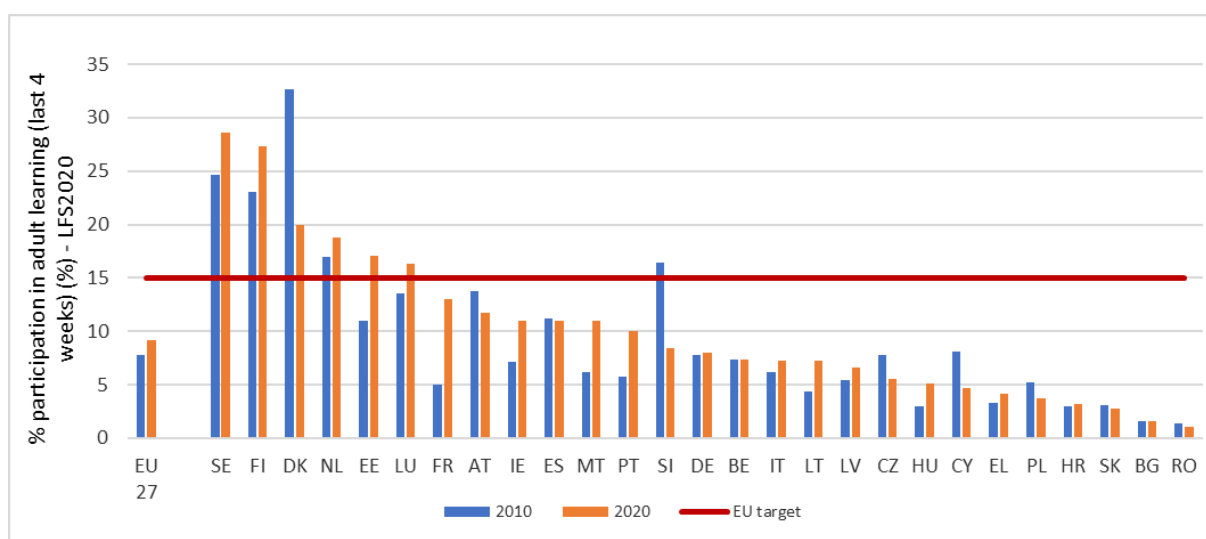
Trends in adult learning participation over time need to be interpreted with caution as they are influenced by statistical breaks in some Member States (with a tendency to overstate progress over recent years). However, the overall finding of moderate progress is confirmed by analyses focussing only on those Member States for which comparable data series are available (cf. Annex 8.3). COVID-19 restrictions resulted in a drop in overall adult learning participation from 10.8% in 2019 to 9.2% in 2020 for EU-27.²⁰⁵ However, adult learning participation is likely to rebound once COVID-19 restrictions are lifted.

²⁰³ Training took either place fully or in part during working hours and/or was paid-for in part or in full by the employer. See Eurostat website, data code [TRNG AES 123](#).

²⁰⁴ [Council conclusions of 12 May 2009 on a strategic framework for European cooperation in education and training \('ET 2020'\)](#) (2009/C 119/02).

²⁰⁵ See Eurostat variable [trng lfse 01](#).

Figure A6.1 – Progress to ET2020 objectives - participation of adults 2010 and 2020



Source: Labour Force Survey, [trng_lfse_01](#). Participation rate is calculated as the share of adults from 25 to 64 year in some form of learning in the last four weeks as percentage of total population.

According to the OECD’s “Programme for the International Assessment of Adult Competencies” (PIAAC), adult learning participation in the EU is also not particularly high in international comparison, with EU average participation lagging behind the OECD average and countries such as the US, Canada or Singapore.²⁰⁶

The remainder of this Annex and the impact assessment in general will draw on the Adult Education Survey, as LFS data with a 12 month reference period is not yet available (see Section 1 of this Annex).

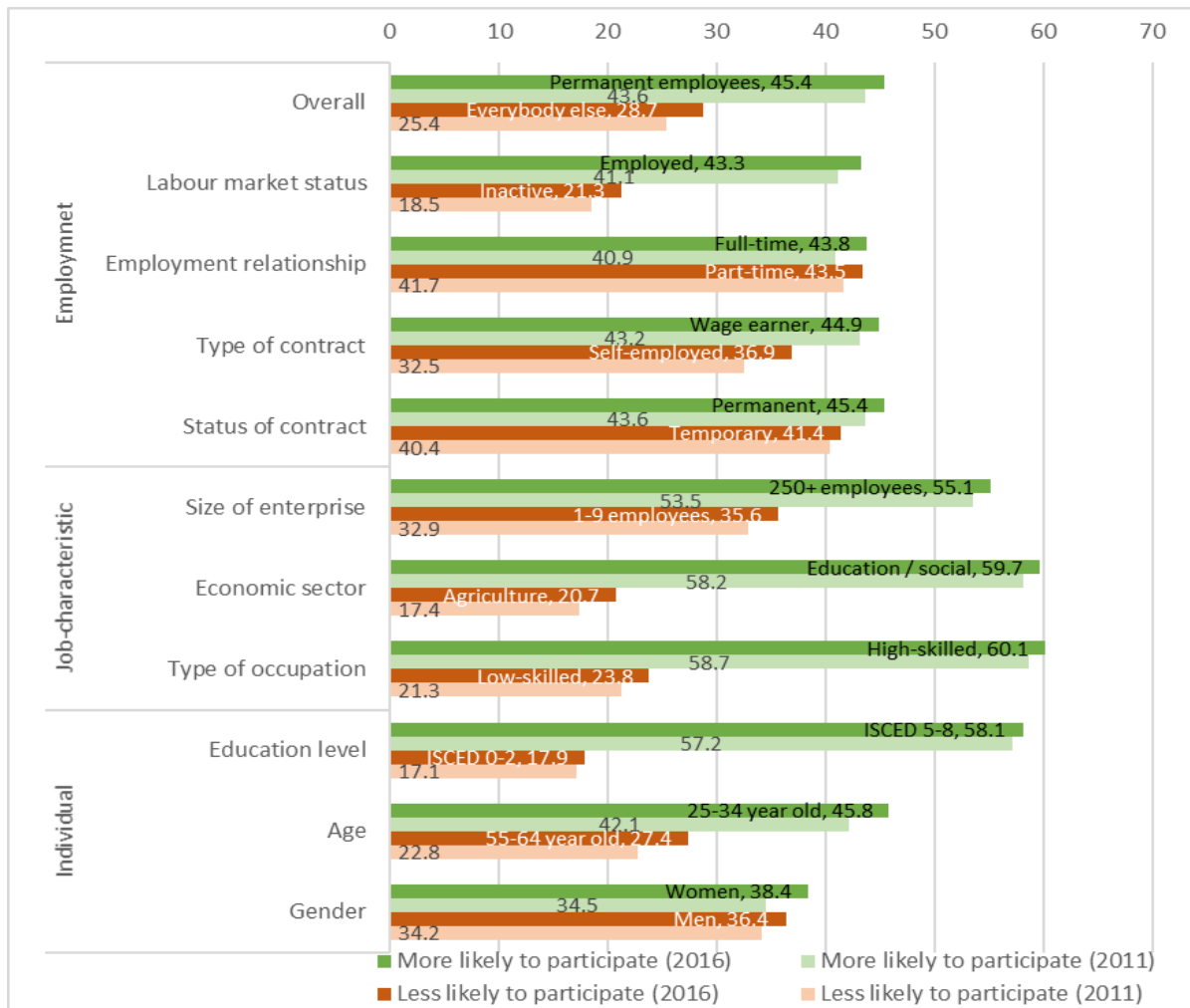
3.2 Participation differences between groups of adults

Access to adult learning opportunities is influenced by characteristics of the employment status, the characteristics of the job as well as individual-level characteristics (Figure A6.2).²⁰⁷

²⁰⁶ See Figure 4.1 of OECD (2019), [Returns to different forms of job-related training: factoring in informal learning](#), OECD Social, Employment and Migration Working Papers and the [PIAAC data on the OECD’s website](#).

²⁰⁷ See European Commission (2020), [Education and Training Monitor 2020](#), for further analysis.

Figure A6.2 – Overview of participation figures – key characteristics

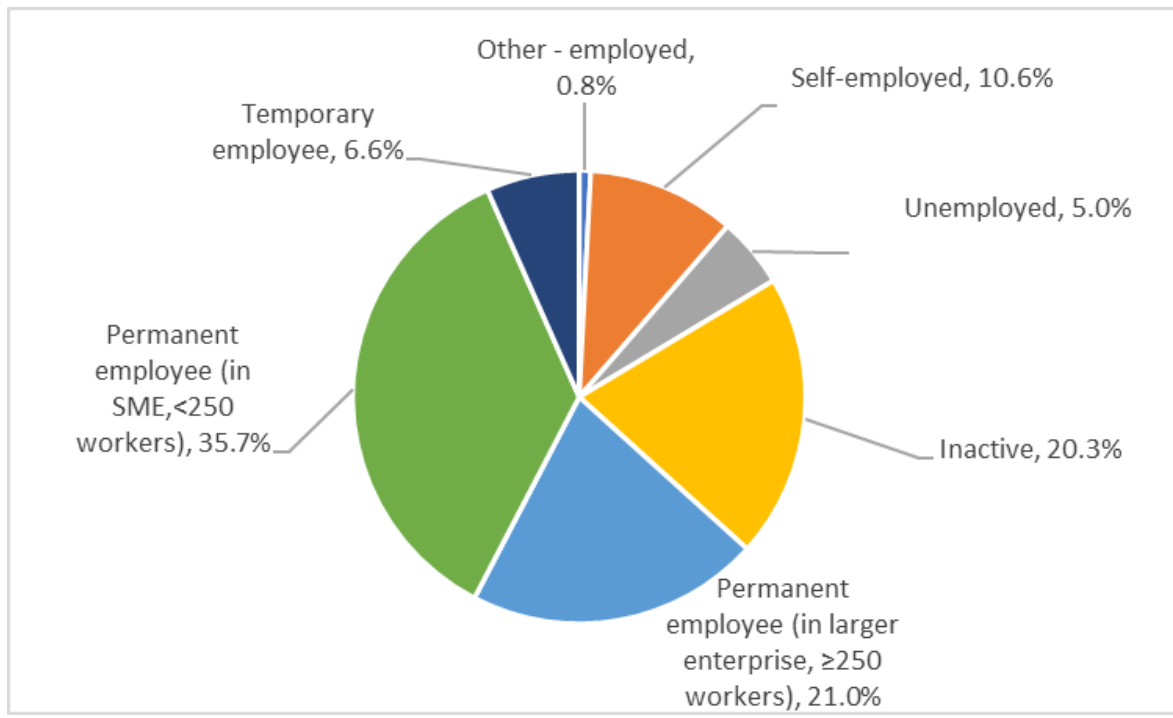


Source: AES 2016.

Participation differences based on the employment status

Statistics show consistently lower adult learning participation for groups of adults that are likely to receive less support from an employer. For instance, permanent employees are more likely to participate in training than other adults across all EU Member States (45.4% vs. 28.7% during last 12 months, see Figure 1 in Section 2.1 of the report). Figure A6.2 above shows how this gap between groups has been relatively constant between 2011 and 2016. Details on the participation rates of the different sub-groups are provided below. To put the numbers into perspective, Figure A6.3 provides an overview of the composition of the EU adult population by labour market status.

Figure A6.3 – Population aged 25-64 years by employment status in 2020

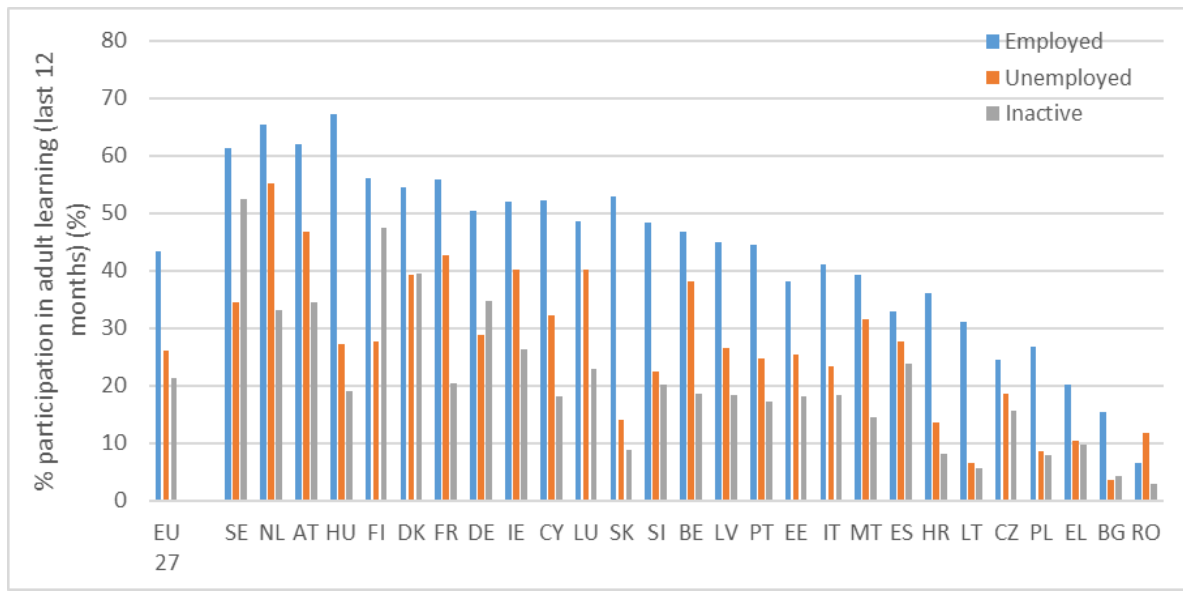


Source: Eurostat Labour Force Survey 2020. The split of permanent workers between SMEs and larger enterprises was conducted on the basis of the AES 2016, as the LFS uses different company size categories.

Labour market status: The share of employed individuals that participated in adult learning (43.3%) is almost double that of unemployed (26%) and inactive persons (21.3%). Particularly large differences can be observed in BG, HU, LT, PL, PT, SI, and SK. The only exception to this pattern is found in RO, where the share of unemployed that participated in adult learning in the last year is higher than the share of employees. Generally, the share of inactive that participates in adult learning is lower than that of unemployed, except in DK, FI and SE. The importance of labour market status-related variables is also apparent in regression analyses of the determinants of adult learning.²⁰⁸

²⁰⁸ Biagi et al. (2020), *Adult learning in Europe: An analysis of the determinants and an attempt at forecasting*, analytical input by JRC for DG EMPL.

Figure A6.4 - Participation in adult learning - by labour market status

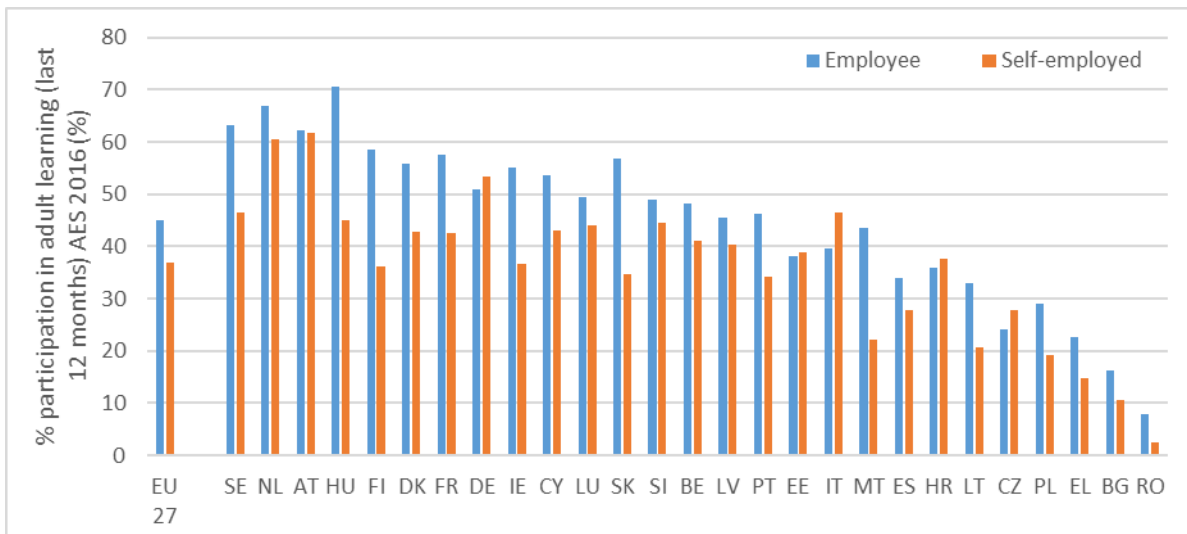


Source: Adult Education Survey 2016. Participation rate in education and training – formal and non-formal, 25-64 years old. Excluding guided on the job training (GOJT).

Employed / self-employed: Employees (wage earners) are consistently more often engaged in adult learning (44.9%, group size estimated by LFS2020 as 152.1 million, or 64% of 25-64 population) than self-employed individuals (36.9%, group size estimated by LFS2020 as 25.1 million, or 11% of the 25-64 population). Particularly steep differences between these groups can be identified in RO, MT, and SK. Only in a handful of Member States, self-employed report more often to have participated in adult learning, such as in CZ, HR, EE, DE, and IT. The OECD PIAAC study found an even more substantial difference, with 35% of self-employed workers participating in adult learning yearly compared with 57% of full-time permanent employees.²⁰⁹

²⁰⁹ OECD (2019), *Employment Outlook 2019: the future of work*. Based on Survey of Adults Skills (PIAAC), chapter 6.

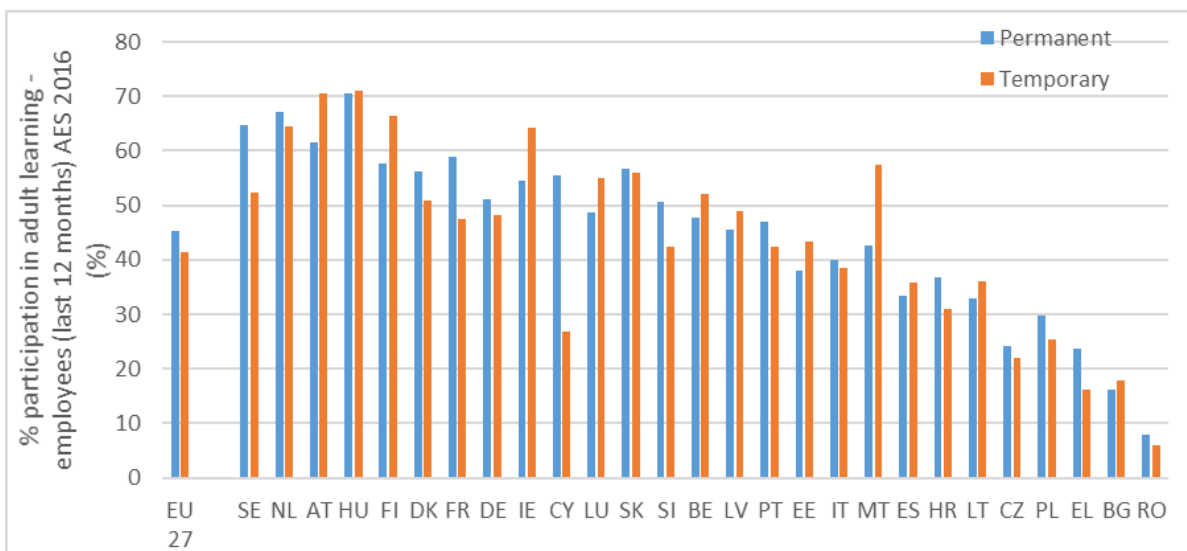
Figure A6.5 - Participation rate, employed and self-employed



Source: Adult Education Survey 2016. Participation rate in education and training of employees – formal and non-formal, 25-64 years old. Excluding guided on the job training (GOJT). Member States are sorted by overall participation in adult learning.

Contract status: Generally, employees with permanent contracts (estimated by LFS2020 as 134.7 million or 57% of 25-64 population) report more often to have participated in adult learning (45.4%) than employees with a temporary contract (41.4%, entire group estimated by LFS2020 as 15.8 million or 6% of 25-64 population). However, exceptions are found AT, HU, FI, IE, LU, BE, LV, EE, MT, ES, LT, and BG.

Figure A6.6 - Participation in adult learning – by contract status

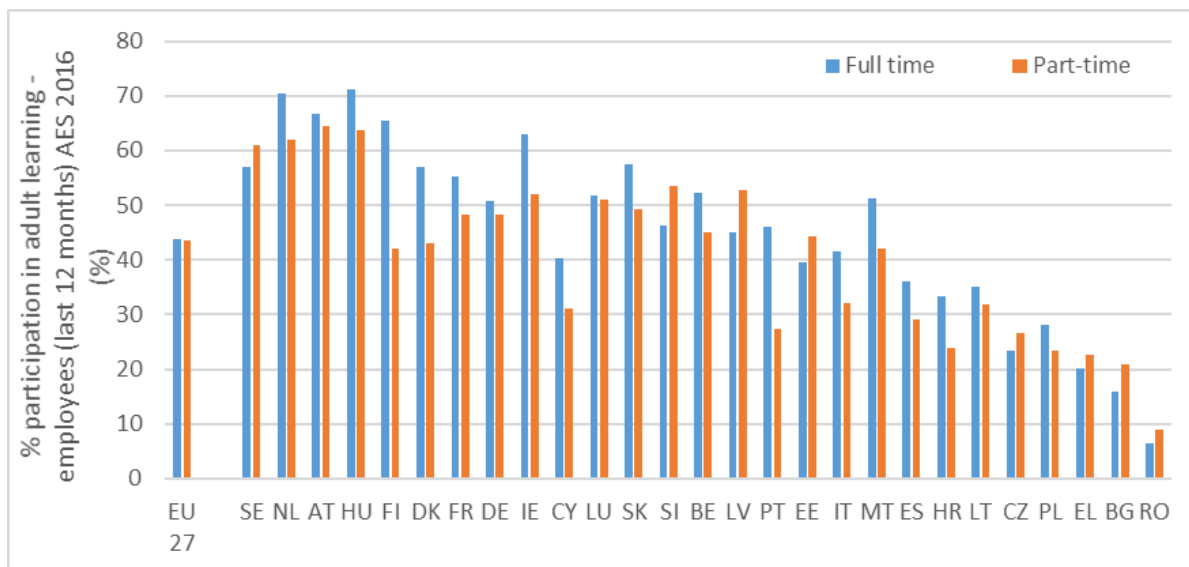


Source: Adult Education Survey 2016 Participation rate in education and training – formal and non-formal, 25-64 years old. Excluding guided on the job training (GOJT). Member States are sorted by overall participation in adult learning.

Full-time / part-time: Participation patterns between employees with full-time and part-time contracts are relatively similar when aggregated at the EU level. In most Member States however, individuals with full-time contracts (estimated by LFS2020 as 146.9 million or 62%

of 25-64 population) report more often to have participated in adult learning (43.8%) than employees with part-time contracts (43.5%, group size estimated by LFS2020 as 30.3 million or 13% of 25-64 population), except in SE, EE, CZ, LV, SI, EL, BG, and RO. Larger differences appear for part-time workers when comparing those with a permanent contract (48.8%), and those and without (38.8%). JRC regressions analysis on AES data shows that full time employees are significantly less likely to participate in formal education and training relative to part-time employees, whereas they are more likely to participate non-formal education and training.²¹⁰ This shows how the factors of employer support and time available affect each in their own way preferences for specific types of training activities.

Figure A6.7 - Participation in adult learning – by contract type



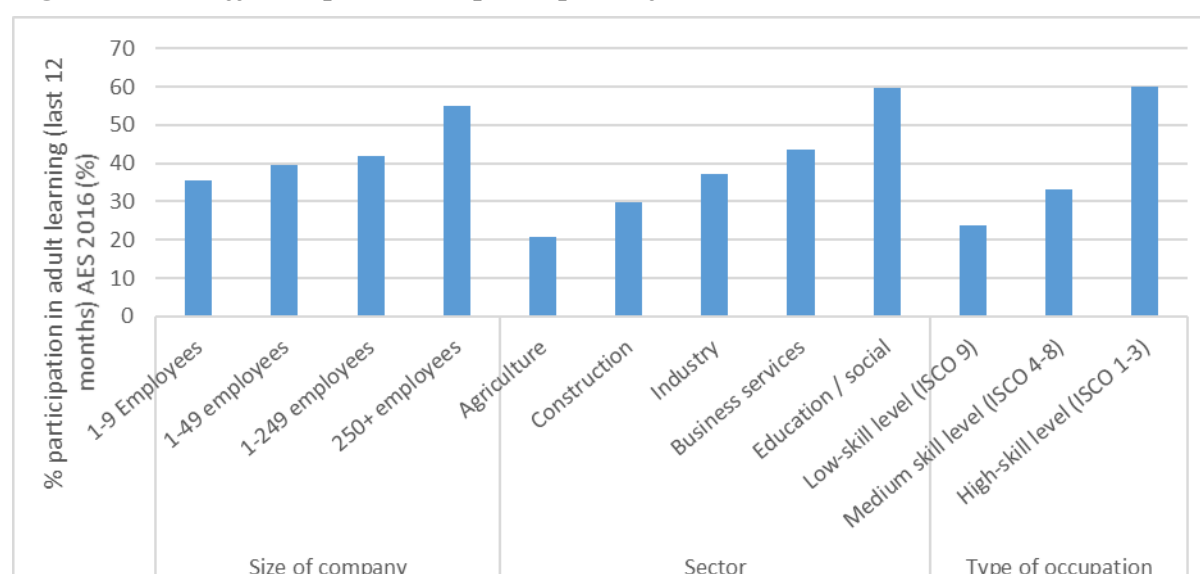
Source: Adult Education Survey 2016. Participation rate in education and training of employees – formal and non-formal, 25-64 years old. Excluding guided on the job training (GOJT). Member States are sorted by overall participation in adult learning.

Participation differences based on the job-characteristics

Participation in adult learning also differs considerably based on characteristics of the employer, the sector and type of occupation as presented below.

²¹⁰ Biagi et al. (2020), *Adult learning in Europe: An analysis of the determinants and an attempt at forecasting*, analytical input by JRC for DG EMPL.

Figure A6.8 - Different patterns in participation for work-related characteristics – EU27



Source: Adult Education Survey 2016. Participation rate in education and training of employees – formal and non-formal, 25-64 years old. Excluding guided on the job training (GOJT). Member States are sorted by overall participation in adult learning.

Enterprise size: The size of the employing enterprise is consistently associated with participation in adult learning; Figure A6.8 shows how participation consistently increases for each increase in size. This pattern is consistent in every Member State. A particularly substantial difference is visible when comparing the participation (42.0%) of employees in SMEs (less than 250 employees, estimated group size 100 million, 41.7% of population aged 25-64) with the 55.1% of workers in larger enterprises (with at least 250 employees, group size estimated at 52.9 million or 21.9% of 25-64 population).²¹¹ Differences between smaller enterprises (1-49 staff, group size estimated by LFS2020 as 78.8 million, 32.8% of population aged 25-64) and micro-enterprises (1-10 staff, group size estimated by LFS2020 as 37.9 million, 16.0% of population aged 25-64) are less profound (39.7% vs. 35.6%). The pattern of lower learning participation in smaller enterprises is confirmed by CVTS data and regression analysis controlling for other factors such as individual characteristics. Specifically, JRC regressions show that employees working in firms with 50 or more workers are found about 7.2 percentage points more likely to participate in non-formal learning compared with those employed in firms with 10 or less workers.

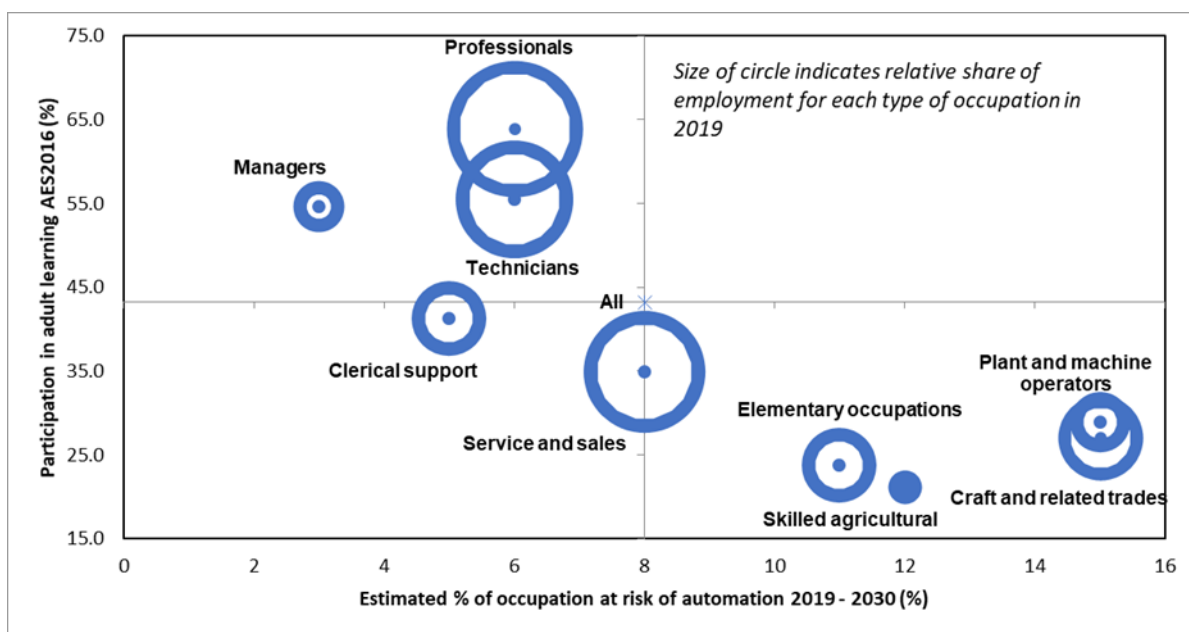
Sector: AES data shows steep differences between sectors, particularly between workers in the education / social sector (participation of 59.7%, group size estimated by LFS2020 as 34.9 million or 15% of 25-64 population) against agriculture (participation of 20.7%, group size

²¹¹ The LFS does not distinguish between small and medium-sized enterprises when asking respondents how many employees work in their company. An estimated 73.9 million people (27.1%) work in companies larger than 50 employees. Comparing an estimate from DG GROW in the [Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions An SME Strategy for a sustainable and digital Europe](#) (COM/2020/103 final) that SME employ around 100 million people against the LFS finding that in 2020 78.8 million work in enterprises of less than 50 employees, this would put the estimated group size of employees working in enterprises with over 250 staff at 52.9 million, or 21.9% of the 25-64 population.

estimated by LFS2020 as 7.7 million, or 3% of 25-64 population) and construction sectors (participation 29.7%, group size estimated by LFS2020 as 12.7 million, or 5% of 25-64 population). Industry (37.1%) and business services (43.5%) score on average in between these other sectors.

Occupation: Occupations that require low and medium level skills show the lowest participation figures in most Member States. Workers in occupations that require higher levels of skills (technicians, professionals and managers, estimated by LFS2020 as 80.0 million, or 34% of 25-64 population) show considerably higher participation figures (60.1%). Especially groups that run the highest risk of displacement by automation show the lowest participation figures in most Member States (Figure A6.9).

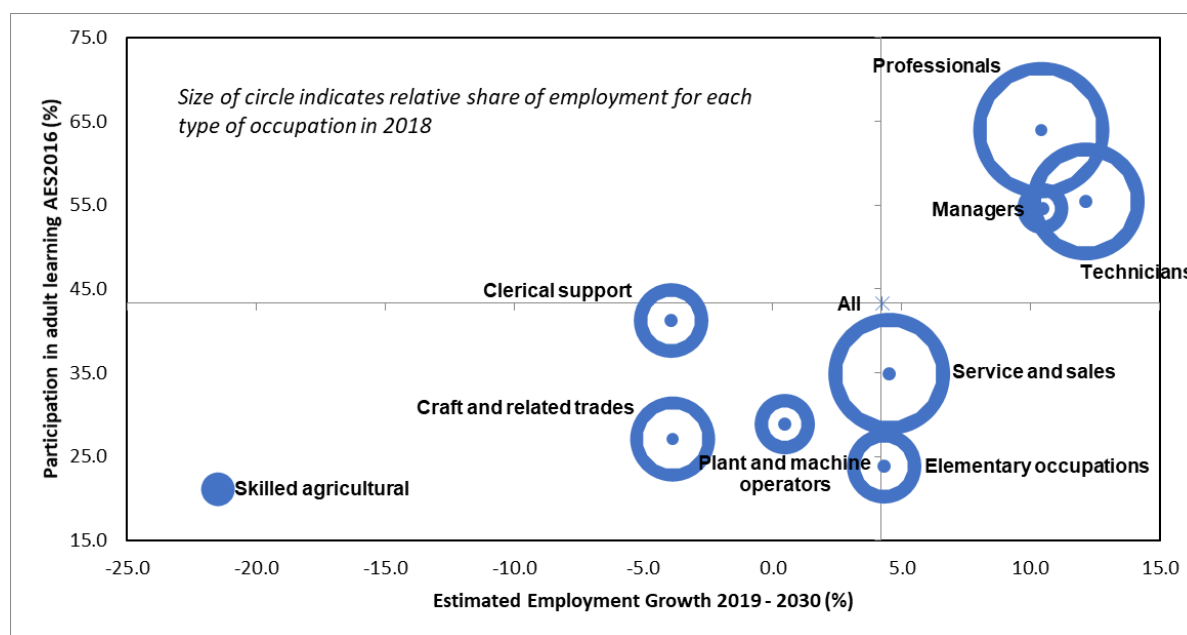
Figure A6.9 - Participation in adult learning and risk of automation



Source: Cedefop estimates from the [Skills Panorama](#) and Adult Education Survey 2016.

Estimated employment growth: Based on the evidence provided above, using Cedefop’s forecasts of future skill demand, it is possible to assess how participation is linked to occupations for which shortages are expected. Figure A6.10 shows projected growth in occupational employment (at the 2-digit ISCO level) projected to 2030 by occupation along with the percentage of people in that occupation who participated in adult learning. It reveals that there are a distinct set of occupations which are characterised by relatively low growth and low level of participation in adult learning (agricultural workers, machine operatives and assemblers, and skilled-trades workers). In contrast, there are occupations where relatively high levels of growth are projected and where the workers participate considerably more in adult learning. It may well be that the risks facing these different groups of occupations vis-à-vis their participation in adult learning may become even more differentiated in the future.

Figure A6.10 - Projected employment growth by occupation by participation in adult learning

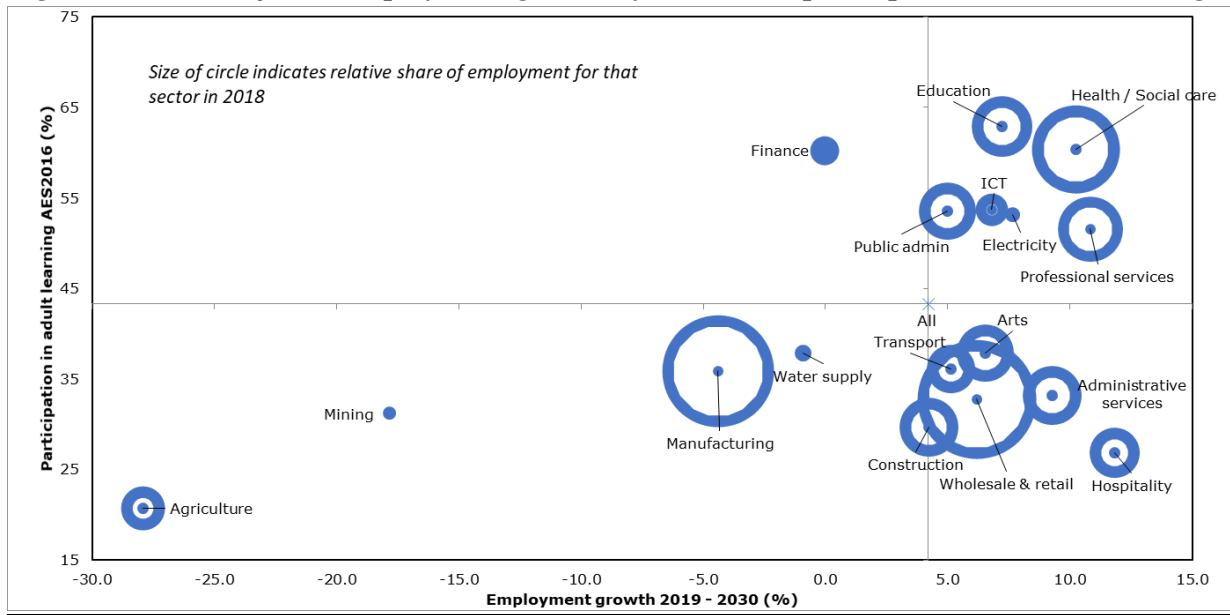


Source: Cedefop Skill Forecasts via Skills Panorama, Adult Education Survey 2016, own calculations

Figure A6.11 summarises the expected employment trends against participation figures at the sector level. It shows that there is a range of sectors where employment is expected to fall and where workers participate comparatively less often in adult learning (i.e. manufacturing, agriculture, mining, and water supply). The position of those currently working in such sectors may be a relatively precarious one: a relatively high risk of job loss with limited participation in training opportunities compared with people working in other occupations. This is particularly true against the background of different consequences of green jobs and occupational changes for different sectors per sector. Some sectors such as renewable energy and environmental goods and services (including water and waste management) have developed significantly and show potential for employment growth. For other sectors the impact varies, such as the construction sector, depending on the degree to which the existing built environment is greened through retro-fitting or, conversely, where the focus is on ensuring that new construction is greener. Some parts of manufacturing, notably the automotive sector, are gradually changing their output to produce more energy-efficient versions of the same product, with limited net employment gains. Other parts of manufacturing are producing green products and creating jobs in the supply chains of green sectors: an example is the production of wind turbines.²¹²

²¹² ILO (2018), [World Employment and Social Outlook 2018: Greening with jobs](#).

Figure A6.11 - Projected employment growth by sector and participation in adult learning



Source: Cedefop Skill Forecasts via Skills Panorama, Adult Education Survey, own calculations

Participation differences based on individual characteristics

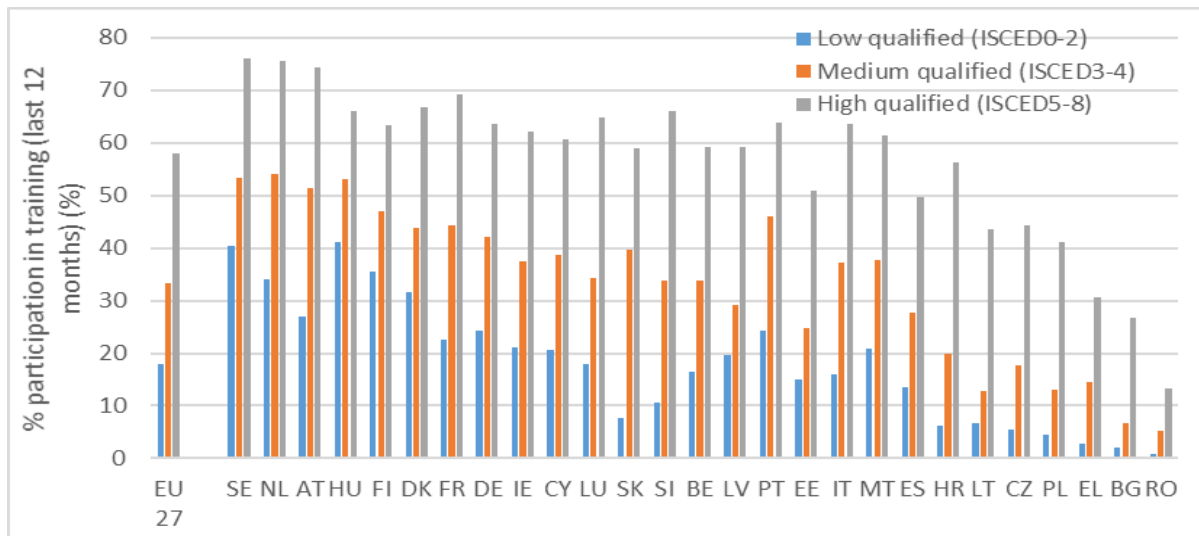
Besides the characteristic of the employment relationship, and characteristics of the occupation, individual characteristics play an important role explaining levels of participation as well, such as level of qualification, age, and gender. However, within groups of similar education attainment and age, differences observed above continue to be important determinants of participation as well.

Educational attainment: The level of education of individuals is widely regarded as one of the driving factors of participation in education and training.²¹³ Low-qualified adults (estimated by LFS2020 as 49.7 million, or 21% of 25-64 population) are considerably less likely to have engaged in adult learning (18.0%) than adults with secondary (33.4%) or tertiary qualifications (58.1%). Across all OECD countries, participation in adult learning by low qualified adults is 40 percentage points below that of high-qualified adults.²¹⁴ This broader pattern is largely confirmed for the EU by the AES as well, which are presented in Figure A6.12 below. Low qualified workers participate considerably less in EL, HR, PL, and RO; here the participation rates of lower qualified adults are less than a quarter of that of the general population.

²¹³ This is known as Matthew effect. Individuals with a higher level of education are especially motivated to deepening their learning Boeren and Boeren (2017), *Understanding adult lifelong learning participation as a layered problem*. Studies in Continuing Education; Rubenson (2018), *Conceptualizing participation in adult learning and education: Equity issues*. In Milana et al.(Eds.), *The Palgrave international handbook on adult and lifelong education and learning* (pp. 337-357),Palgrave

²¹⁴ OECD (2019), *Employment Outlook 2019: the future of work*. Based on Survey of Adults Skills (PIAAC).

Figure A6.12 - Participation in adult learning – by education level

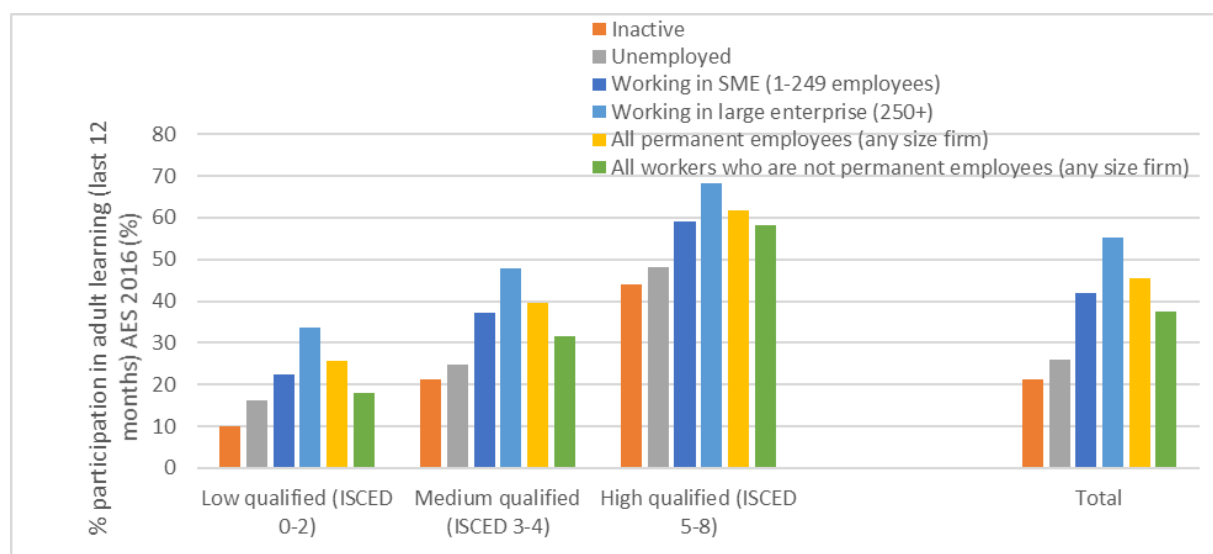


Source: Adult Education Survey 2016. Participation rate in education and training – formal and non-formal, 25-64 years old. Excluding guided on the job training (GOJT).

Regression analysis performed by the Joint Research Centre confirms this. It also shows that the size of the effect of education is stronger for non-formal education and training and informal learning compared with formal education and training. The JRC regression analysis shows that individuals with tertiary education are about between 28 and 30 percentage more likely to participate in non-formal education and training and informal learning than those with lower secondary education or less. The corresponding figure for formal education and training is about 7 percentage points.

While education level is widely considered as one of the main determinants of an individual’s participation in adult learning, one needs a broader perspective if one seeks to address such differences in participation. The barriers experienced by individuals with lower qualifications vary, based on other conditions, such as the support available by their employer, or the need for specific training on the short term for their work. The figure below for instance highlights the differences in adult learning participation across different education levels, but also shows that the differences in support for individuals continue to contribute to participation as well; among each level of qualification, individuals with permanent contracts participate more in adult learning than workers who are not permanent employees. The figure also highlights how for each qualification level, workers in larger companies consistently participated more often in adult learning than individuals in smaller companies, while the unemployed and inactive participate consistently less. This underlines the need for better understanding the barriers that all individuals face, considering the extent to which these affect individuals with lower qualifications.

Figure A6.13 - Participation rate, by education level, employment status and size of enterprise



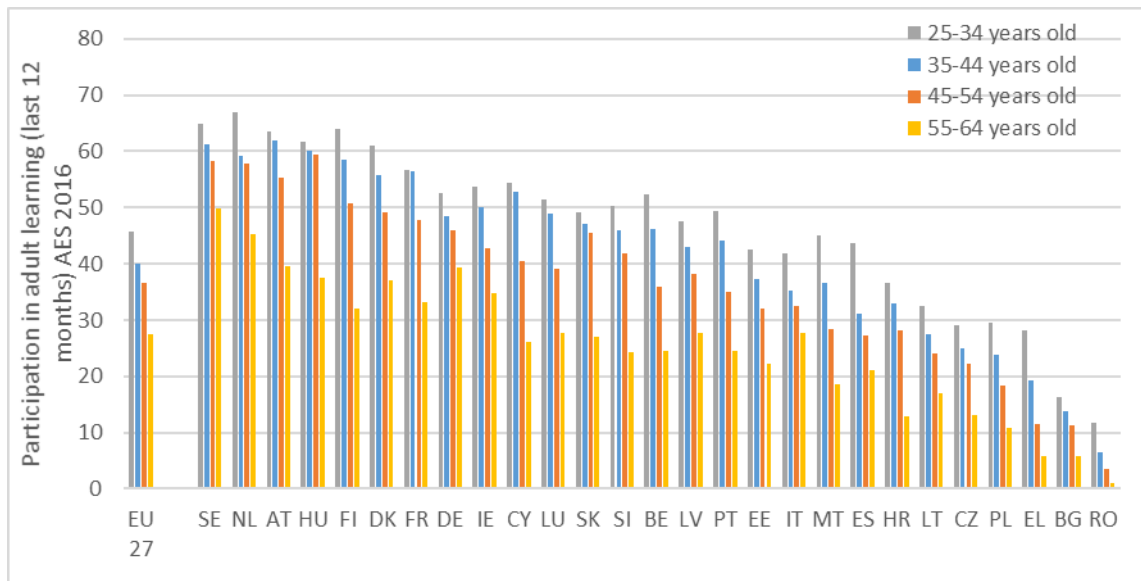
Source: Adult Education Survey 2016. Participation rate in education and training. Excluding guided on the job training (GOJT). Note that the two categories depicting size of firm overlap with the two categories depicting the type of contract of salaried workers\

Age: Participation tends to be consistently lower for higher age categories (Figure A6.14 below). This pattern is observed across all Member States. Particularly the higher age group (55 to 64 years – participation of 27.4%, group size estimated by LFS2020 as 60.1 million, or 25% of 25-64 population) reports considerably lower participation rates than other groups. Nevertheless, additional analysis again points to substantial differences when comparing participation in formal and non-formal learning.²¹⁵ For non-formal learning the estimates point to an inverse-U relationship: the probability increases up to age 31-32 and declines thereafter. Particularly for job-related non-formal learning, the mid-aged participate most, which is consistent with a need to update skills via non-formal learning for those with some distance to initial education.²¹⁶ On the other hand, for formal learning, a U-shape is observed, with the likelihood decreasing after age 21 and increasing again after age 61.

²¹⁵ Biagi et al. (2020), *Adult learning in Europe: An analysis of the determinants and an attempt at forecasting*, analytical input by JRC for DG EMPL.

²¹⁶ See also Eurostat (2021), [Adult learning statistics](#).

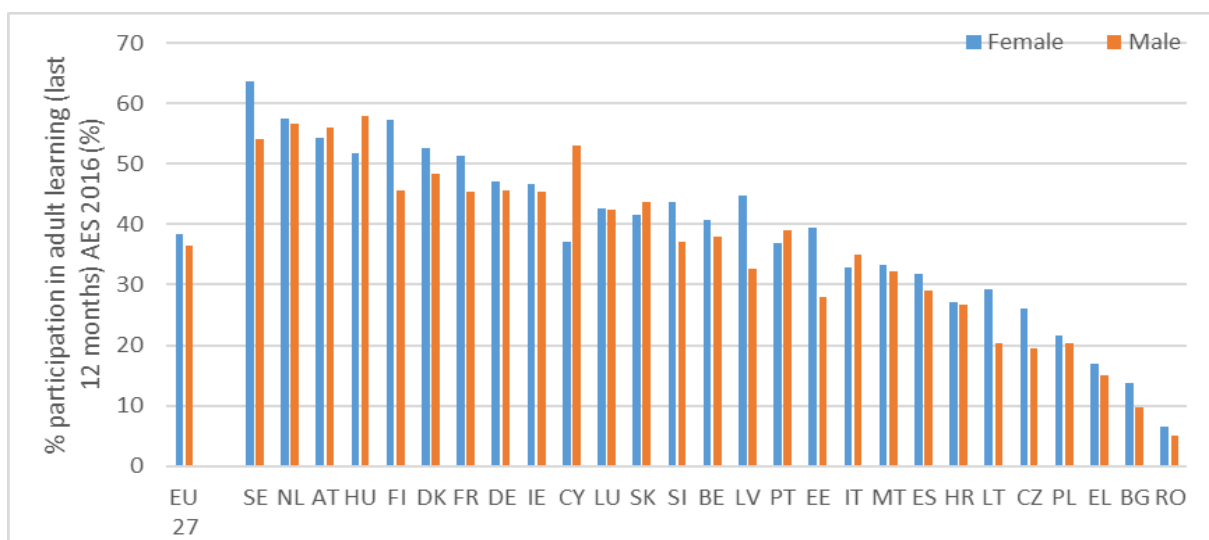
Figure A6.14 - Participation in adult learning – by age



Source: Adult Education Survey 2016. Participation rate in education and training – formal and non-formal, 25-64 years old. Excluding guided on the job training (GOJT).

Gender: Figure A6.15 shows that women participate slightly more (38.4%) in adult learning than men (36.4%) at the aggregated level, although the differences are small. In some Member States larger differences can be observed such as in SE (considerably more women than men participating in adult learning) or CY (considerably more men participating in adult learning). While these statistics do not suggest major differences in participation, larger differences exist in the types of adult learning that men and women participate. A total of 83.2% of non-formal learning activities of men was job-related, compared to 74.6 % for women. This pattern was found in almost all EU. Only in CY the trend is reversed, where the share of job-related non-formal learning activities was higher for women than for men (79.3 % against 66.3 %).²¹⁷

Figure A6.15 - Participation in adult learning – by sex



²¹⁷ See also Eurostat (2021), [Adult learning statistics](#).

Source: Adult Education Survey 2016. Participation rate in education and training – formal and non-formal, 25-64 years old. Excluding guided on the job training (GOJT)

Persons with disabilities: Data also suggest that persons with disabilities (estimated by EU-SILC as 14%, or roughly 33.2 million of the 25-64 EU adult population) participate only half of the average amount of individuals without disabilities.²¹⁸ While such data is not collected systematically in the Adult Education Survey, transposing the estimates about participation in adult learning from the Survey on Income and Living Conditions to the averages presented in this section would be equivalent to roughly the participation figures of the inactive population (21.73).²¹⁹ The average employment rate at EU level among persons with disabilities is also considerably lower (52.0%) than for other adults (76.2%), as a result of which they also are less likely to receive support from an employer to enrol in training.²²⁰

4. Recommendations to increase participation in adult learning in the European Semester

Analysis of the Country Specific Recommendations over the years 2019/2020 shows that all countries received a recommendation related to skills development, mostly related to basic and digital skills. The contents of each recommendation are classified and summarised in Table A6.1. It shows how recommendations also referred to the need for strengthening lifelong learning; and improving the performance, quality labour market relevance, inclusiveness and flexibility of education and training systems addressing skills mismatches.²²¹ While references to the education system or inclusive education may not explicitly refer to adult learning per se, such recommendations still have a bearing for adult learning, which also covers formal learning. In 19 Member States, adult learning was highlighted specifically as an area to focus system-level reforms. The table below compares Member States on their existing level of participation in adult learning (the main benchmark for this study) and categorise these in three groups. The table shows that despite the variety of different adult learning systems, Recommendations single out adult learning in most Member States, both in Member States where participation is above the EU average and below.

Several Country Specific Recommendations refer to specific target groups like low qualified/skilled, job seekers, inactive people, older workers, people with a migrant background, Roma, and other groups with specific needs. In these cases, the Country Specific Recommendation generally address the need for increasing adult learning and improve coverage of education and

²¹⁸ Grammenos (2018), [Statistics on Persons with Disabilities 2018](#), EU-SILC 2018. The SILC only classifies fulltime training, or working less than 30hours in combination with training, so is relatively insensitive for the types of short and nonformal training that is the object of this impact assessment. Its results with regard to measuring participation in adult learning are therefore not comparable with that of the Adult Education Survey. However, the trends for persons with disabilities compared to others give us some indication of the differences in participation.

²¹⁹ Estimate based on the finding in EU-SILC 2016 that 2.4% of population with disabilities reports to have stopped working (temporarily) for training purposes, against 4.1% of the population without disabilities.

²²⁰ Grammenos (2018), [Statistics on Persons with Disabilities 2018](#), EU-SILC 2018.

²²¹ An analysis was made of all Country Specific Recommendation to MS for 2019 and 2020. Where recommendations focused on skills and explicitly pointed to adult learning as a way to improve such skills, these were classified in multiple categories.

training systems as well as the need to strengthen quality and labour market relevance of training offer, on which the ILA initiative could contribute.

Table A6.1: Overview of Country Specific Recommendations 2019/2020 on skills, adult learning and performance of education and training systems

MS	Participation in AL	Attention in CSR		Attention for system-level reform			Attention for skills		
		2019	2020	Performance of education systems in general	Adult learning specifically	Inclusive education in general	Skills in general	Digital skills	Basic skills
AT	High	X	X		X		X		X
DK	High		X		X		X	X	
FI	High	X	X	X	X		X	X	
FR	High	X	X				X		
DE	High	X	X		X		X	X	X
HU	High	X	X	X	X	X			
IE	High	X	X	X	X		X	X	X
NL	High	X	X		X	X	X	X	X
SE	High	X	X				X	X	
BE	Medium	X	X	X			X		
CY	Medium	X	X	X	X		X	X	
EE	Medium	X		X	X				
IT	Medium	X	X	X	X		X	X	
LV	Medium	X	X	X	X		X	X	
LU	Medium	X	X	X	X		X	X	
PT	Medium	X	X	X	X		X	X	
SK	Medium	X	X	X	X	X		X	
SI	Medium	X		X	X			X	
BG	Low	X	X	X			X	X	
HR	Low	X	X	X		X	X		
CZ	Low	X	X	X	X	X	X	X	
EL	Low	X	X	X	X	X		X	X
LT	Low	X	X	X	X	X	X	X	
MT	Low	X	X	X	X	X	X		
PL	Low	X	X	X	X		X	X	
RO	Low	X	X	X		X	X	X	
ES	Low	X	X	X			X	X	
TOTAL:		26	26	21	19	10	22	20	5

ANNEX 7: ADDITIONAL EVIDENCE ON THE PROBLEM DRIVERS

1. Driver 1: Insufficient financial support

This Section further explores how the existing gaps in financial support for adult learning is a first driver that limits progress in increasing participation rates of adults in learning and produces inequalities. Gaps in financial support are identified due to an overall insufficient

level of investments in adult learning, as well as limited coverage and fragmentation of existing support for adult learning. Each of these three elements are explored in more detail below.

1.1 Level of investments in adult learning

A first factor that contributes to gaps in financial support is related to the overall level of support available, i.e. the existing level of investments in adult learning. This refers to any type of financial support, which can include the supply-side coverage of the formal education system (if relevant), or specific public policies that subsidise individuals or firms in taking up adult learning courses (which may be formal or non-formal). Investments in adult learning are made by employers, public authorities as well as by individuals themselves. In most Member States, formal adult education is fully subsidised by the State until upper secondary level, while higher education and VET for adults are usually subject to fees, which are often paid by individuals. Non-formal education and training activities are more widely subsidized (in most cases by employers) than formal education and training activities.²²²

By combining information from the AES, CVTS and public investment on training as part of active labour market policies, investments in adult learning could be estimated at a total of 1.7% of GDP for the EU27.²²³ Despite the methodological caveats, this measure comes closest to an EU-wide mapping of financial investments in adult learning. The estimates for each Member State were validated by the adult learning network.²²⁴ Because these estimates are primarily based on self-reporting, it can be assumed that these tend towards the higher-end of estimations; actual total investments may be below these estimates, but are unlikely to be higher. This is also confirmed when compared to earlier aggregated estimates of adult learning investments, which suggested a range of 0.8%-1.2% of GDP²²⁵, of which public investments in most Member States tends to be less than half. The maximum level of estimated financing in adult learning across Member States varies substantially, from less than 0.5% in RO to almost 2.5% of GDP in Scandinavian countries.

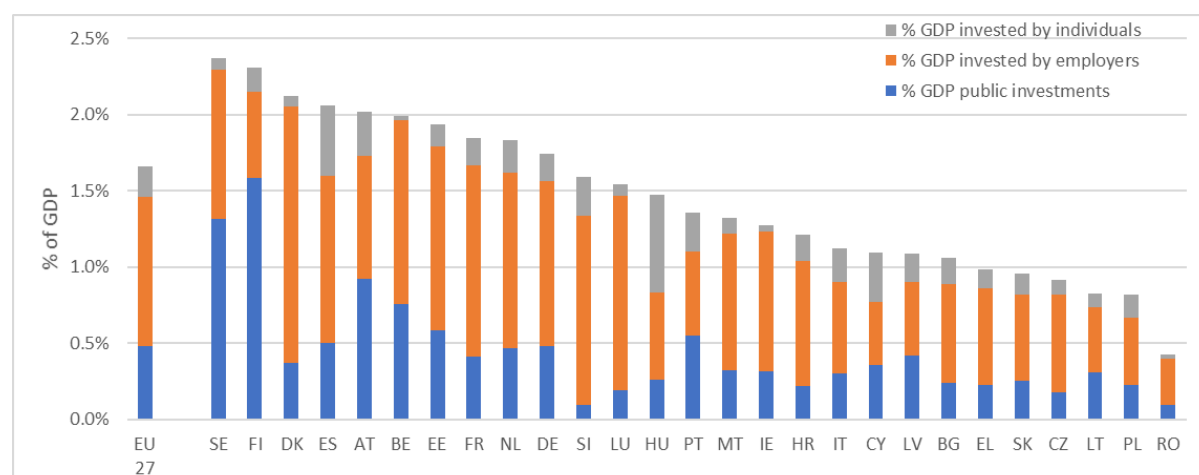
²²² OECD (2019), [Getting Skills Right: Future-Ready Adult Learning Systems](#), based on Adult Education Survey 2016.

²²³ This builds on European Commission (2020), [Workforce skills and innovation diffusion: trends and policy implications](#). The variety of different systems, contributions and actors makes it difficult to compare actual investments over time and across Member States. The collection of coherent and comparable data is further complicated by the fact that public funding for adult learning is the responsibility of the central or state level in around half of the Member States; in the other half regional or local governments also play a significant role in supporting adult learning European Commission (2020), [Achievements under the renewed European agenda for adult learning \(2011-2018\), Report of the ET 2020 working Group on adult learning \(2018-2020\)](#), page 37. No data is available to estimate the investments of publicly financed non-formal adult learning outside the domain of active labour market policies.

²²⁴ Mapping of available instruments conducted by the adult learning expert network for the purpose of the IA on ILAs. See Annex 4 for more information.

²²⁵ FiBS/DiE (2013), [Financing the Adult Learning Sector](#).

Figure A7.1 - Investments in adult learning as % of GDP



Source: based on estimates suggested by European Commission (2020)²²⁶, for individuals' and household expenditures on formal and non-formal learning ([Adult Education Survey 2016](#)), expenditure on employee training by public and private employers ([Continuing Vocational Training Survey 2016](#)), public investments based on expenditures in training as part of active labour market policies ([Labour Market Policies database](#)).

Data in Figure A7.1 confirms the relatively low level of the public share of investments, below 0.5% of GDP.²²⁷ Correspondingly, there are important private contributions to adult learning, most particularly by employers. Substantially over half of the estimated investments can be linked to employer contributions. This is estimated at over two-thirds of the total investments in CZ, DK, FR, HR, IE, LU, MT, RO, and SI.

This data also highlights how member states with the highest levels of adult learning investments also have considerably larger shares of public investments in adult learning than member states with lower levels of investments in adult learning.

A review by experts pointed that the current levels of investments in adult learning is inadequate for ensuring sufficient quality and access in adult learning in 23 out of the 27 Member States. The research literature also confirms that actively encouraging all adults to learn would require additional investments, both of public and private nature²²⁸. One in five European firms for instance also indicate they have underinvested in training of their

²²⁶ European Commission (2020), [Workforce skills and innovation diffusion: trends and policy implications](#). See also European Commission (2020), [Adult Learning Statistical Synthesis Report](#), pp. 22-34.

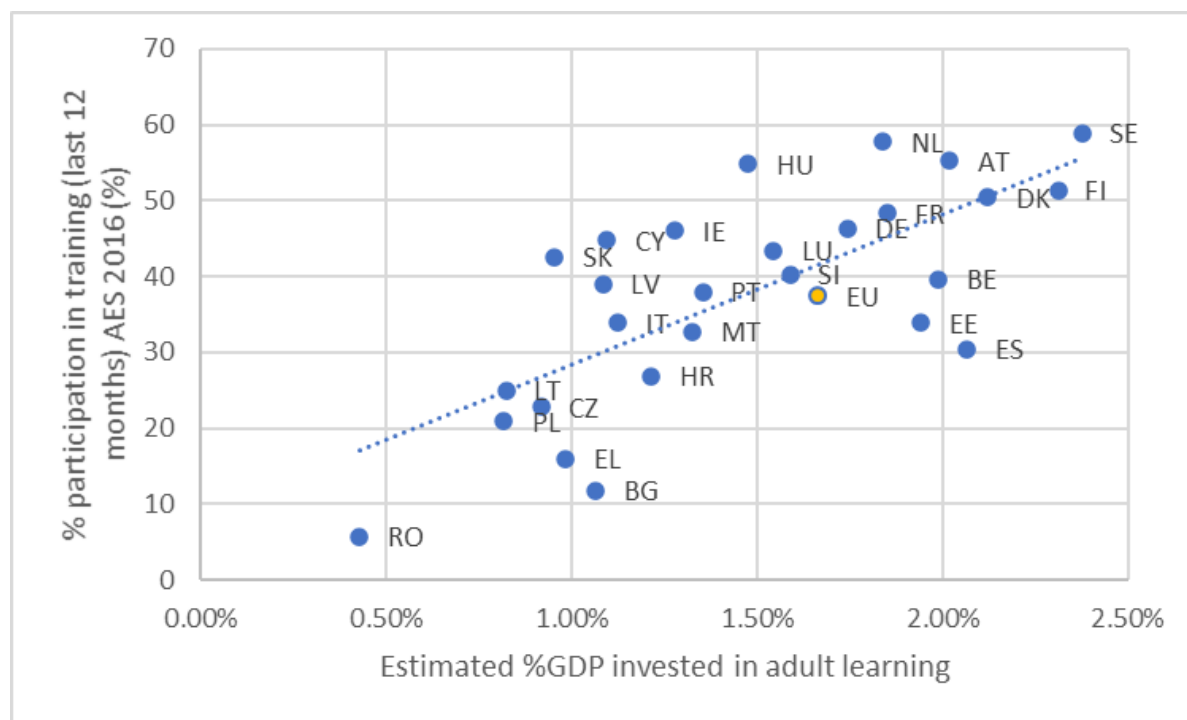
²²⁷ These estimates for public investments in principle include EU support for active labour market policies, in the form of ESF/YEI or otherwise. However, the extent to which these are fully reflected in the LMP database figures and are reported as active labour market policies vary per Member State and per year, depending both on data availability and definitions used. See for a detailed discussion for instance European Commission (2020), [Labour market policy Expenditure and participants](#).

²²⁸ Brunello and Wruuck (2020), [Employer provided training in Europe: determinants and obstacles](#). IZA Institute of Labor Economics.

workforce.²²⁹ National experts deemed investments only adequate in four Member States (AT, EE, MT, NL).²³⁰

The importance of investing in adult learning is further highlighted; because higher investments move together with higher levels of participation.²³¹ Moreover, the level of investment also correlates with the relative difference in participation between those in atypical employment and of other working-age adults.²³² Member States with higher investments in adult learning (by public authorities, employers and individuals together) have lower inequalities in participation between permanent workers and other adults aged 25-64, as presented in the figure below. Member States that mobilise higher overall amounts of funding for adult learning therefore not only see more often higher participation rates but also lower inequalities in the participation rates between full-time permanent employees and other adults.

Figure A7.2: Correlation of participation in adult learning with % of GDP invested



Source: Adult Education Survey 2016 for participation figures, financial estimates based on European Commission (2020), who estimate for individuals' and household expenditures on formal and non-formal learning ([Adult Education Survey 2016](#)), expenditure on employee training by public and private employers ([Continuing Vocational Training Survey 2016](#)), public investments based on expenditures in training as part of active labour market policies ([Labour Market Policies database](#)).²³³

²²⁹ European Investment Bank, (2019), [EIB Investment Report 2018/2019: retooling Europe's economy - Key findings.](#)

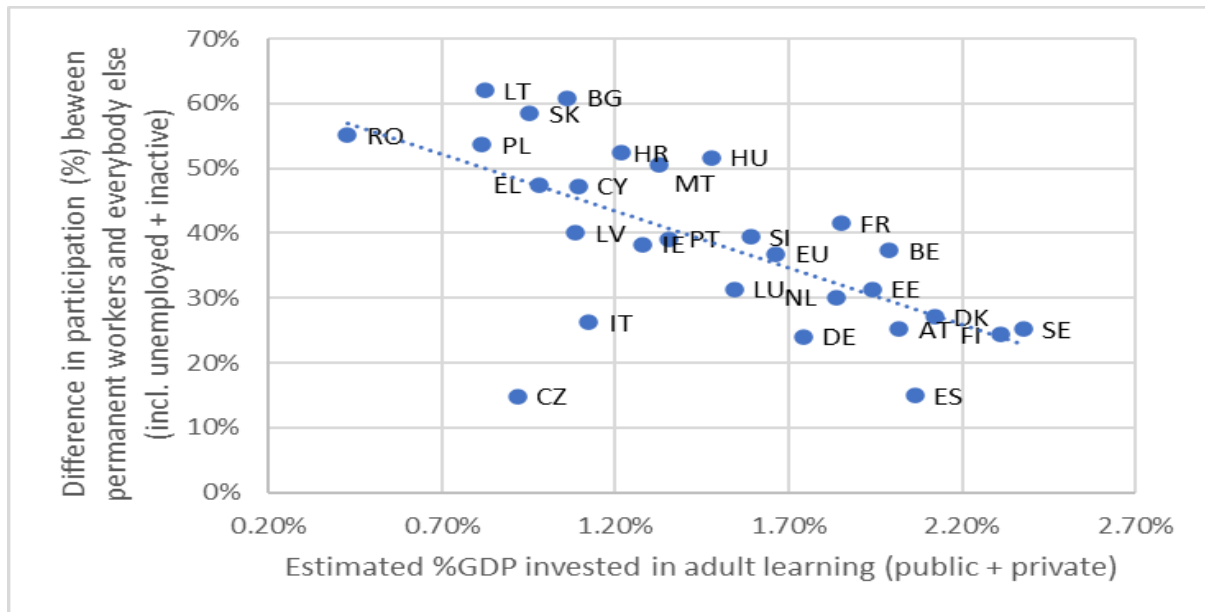
²³⁰ Individual (unpublished) country reports by Adult Learning expert network 2020, supporting DG EMPL.

²³¹ Both elements show a statistically significant correlation (Pearson's r of 0.724 at p<.01).

²³² Statistical significant correlation (Pearson's r of -0.65 at p<.01).

²³³ European Commission (2020), [Workforce skills and innovation diffusion: trends and policy implications](#). Annex 8. See also European Commission (2020), [Adult Learning Statistical Synthesis Report.](#), pp. 22-34.

Figure A7.3 - Correlation between % GDP invested and differences in participation of key groups



Source: Adult Education Survey 2016 for participation figures, financial estimates based on European Commission (2020), who estimate for individuals' and household expenditures on formal and non-formal learning ([Adult Education Survey 2016](#)), expenditure on employee training by public and private employers ([Continuing Vocational Training Survey 2016](#)), public investments based on expenditures in training as part of active labour market policies ([Labour Market Policies database](#)).²³⁴

1.2 Limited coverage of existing support schemes in terms of groups of adults and types of training

In addition to the insufficient overall level of investment available for adult learning, systematic gaps in coverage can be identified for specific target groups and for specific types of training. Both elements are discussed in more detail below.

Limited coverage of groups of adults

The vast majority of participants in *non-formal* education and training do not have to pay themselves for costs to participate; most often because such costs are covered by employers.²³⁵ Such investments in the skills of staff are done with a view on possible future productivity gains and help explain the importance of the provision of job-related training among the overall share of adult learning. Nevertheless, employers need to weigh possible future productivity gains against the risk of poaching of trained workers by competitors.²³⁶ Such uncertainty increases substantially when investing in training of part-time staff or staff on temporary

²³⁴

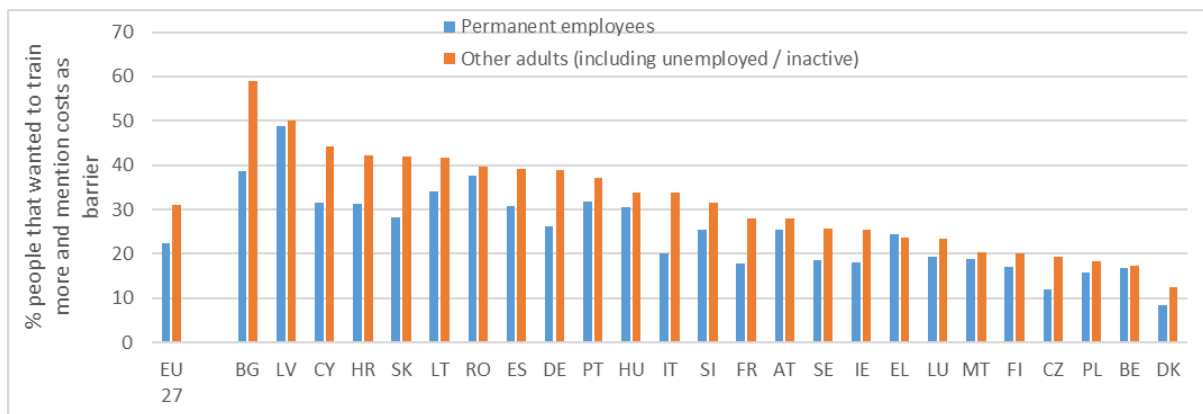
European Commission (2020), [Workforce skills and innovation diffusion: trends and policy implications](#), Annex 8. See also European Commission (2020), [Adult Learning Statistical Synthesis Report](#), pp. 22-34.

²³⁵ European Commission (2020), [Adult learning statistical synthesis report](#), p. 25.

²³⁶ See for instance: Mohrenweiser et al., (2013), [Poaching and Firm-sponsored Training: First Clean Evidence](#), Centre for European Economic Research.

contracts.²³⁷ The returns of training may not (fully) benefit the enterprise when an individual works only part-time, and are more likely to be negative for staff in temporary contracts. As a result, existing support for training mostly benefits individuals in permanent employment. People without an employer, either because they are self-employed or unemployed or inactive, also receive considerably less financial support to pursue adult learning. As shown below (Figure A7.4), at the level of the EU individuals without a permanent contract consistently mention costs as a reason for not participating in adult learning more often (30.9%) than those with such a contract (22.3%).

Figure A7.4 - Share of respondents that want to train more and mention cost as a reason

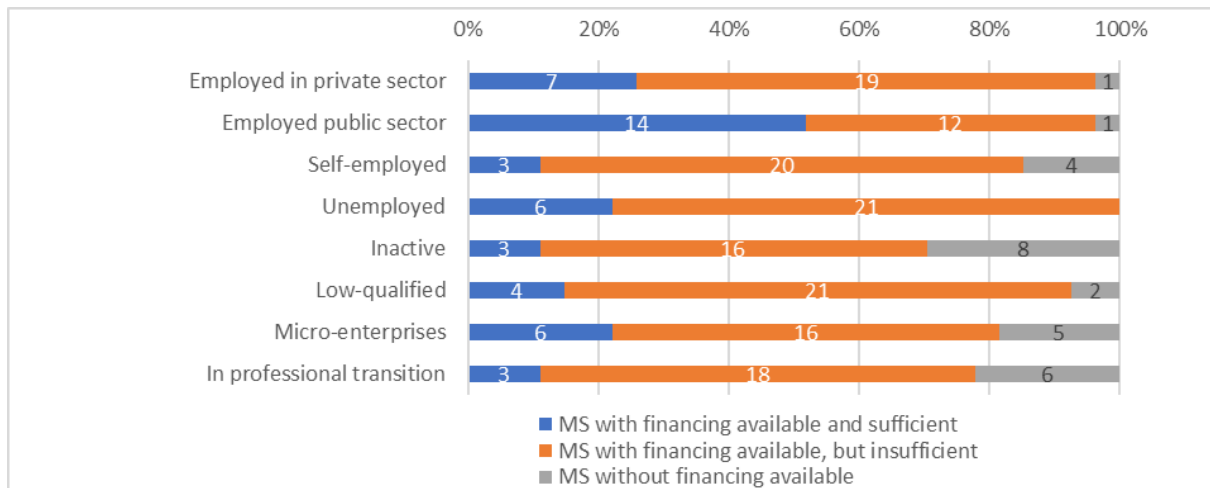


Source: authors, based on [Adult Education Survey 2016](#). Other adults include other employees (employees with a temporary contract, self-employed and family workers), as well as unemployed and inactive.

Figure A7.5 below summarises an expert judgment of the extent to which available financing measures are an adequate support for different target groups. It confirms that financial support for employees with regular contracts is more often in place than instruments for other groups, such as self-employed, unemployed or inactive, as well as individuals in professional transitions.

²³⁷ Poulissen et al., (2021), [Employers' Willingness to Invest in the Training of Temporary Workers: A Discrete Choice Experiment](#), Institute of Labor Economics (IZA).

Figure A7.5 - Adequacy of support per target group as assessed by experts



Source: authors, based on mapping of available instruments conducted by Adult Learning expert network for the purpose of the Impact Assessment on the Individual Learning Accounts initiative.

The size of an enterprise is also a relevant factor for the level of support for training its workers. Data consistently shows that larger enterprises offer training opportunities to workers more often than smaller enterprises.²³⁸ The OECD estimates that staff in SMEs participate in 50% fewer training activities than those of larger firms.²³⁹ The European Company Survey showed that small establishments were most likely to train less than 20% of their workers during working time, while large establishments were least likely to do so.²⁴⁰ SMEs often find it difficult to financially support learning activities and ensure replacement of staff, due to their small size and the relatively high costs for training. Larger companies more often have explicitly developed career plans and internal growth opportunities, linked to training budgets and specific training programmes.

Finally, individuals who want to pursue training without the financial support from an employer face greater difficulties to finance it. As a proxy, an analysis of Eurofound’s Survey on Living Conditions highlights how people at risk of poverty mention the costs of training as barrier for participation almost three times as much as other respondents.²⁴¹ The available public support measures insufficiently help reducing cost barriers to participation (Annex 8.2).

Limited coverage of types of training

The dominance of employer-sponsored training has implications for the types of training supported. Employer-sponsored investments in the skills of staff can be expected to prioritise the types of training that are firm-specific and directly benefit productivity levels of the enterprise. There is not incentive to support training on transversal skills, which could help a

²³⁸ Cedefop (2019), [Continuing vocational training in EU enterprises: Developments and challenges ahead](#).

²³⁹ OECD (2013), [Overview of training and skills development in SMEs](#).

²⁴⁰ Eurofound and Cedefop (2020), [European Company Survey 2019: Workplace practices unlocking employee potential](#), page 92.

²⁴¹ Based on [2016 SILC module](#), available at Eurostat.

worker to maintain his/her employability in the long run, even by changing company or sector. This is reflected in the relative small share of employer-sponsored training dedicated to more transversal skills of employees, such as general IT skills.²⁴² The Continuing Vocational Training Survey in 2015 for instance shows that only 13% of training by employers is focused on more transversal skills, such as general IT skills, and less than 1% on numeracy and literacy skills. The selective coverage of specific types of training risks insufficiently allows individuals to prepare for future shifts in skills demands when job stability has decreased in most EU countries,²⁴³ which increases in job mobility, as the evidence from the OECD suggests. This trend is particularly evident among workers with lower qualifications.

1.3 Barriers to devoting time to training

Conflicting commitments of individuals and insufficient time available for training are important barriers to participation, as shown in the figure below. Time is one of the most often mentioned barriers by permanent employees (46.3%), and to a lesser extent by other adults (38.1%). This section presents evidence on barriers to devoting time to training from the perspective of employers. Personal reasons that limit individuals from devoting time to training also affect participation and are discussed under driver 2 (motivation).

Figure A7.6 - Share of respondents that want to train more and mention conflicting schedules as a barrier



Source: authors, based on [Adult Education Survey 2016](#). Other adults include other employees (employees with a temporary contract, self-employed and family workers), as well as unemployed and inactive.

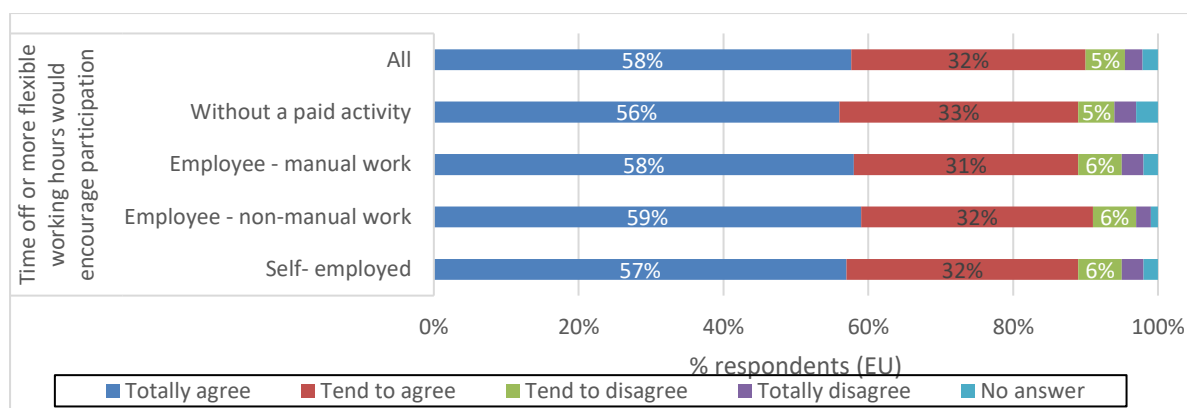
The relatively high short-term costs of freeing an individual from the workplace to learn and investing in an employee's training contributes to a possible misalignment of incentives for employers, and can act as important barrier to participation in adult learning. A Cedefop mapping shows how access to training leave provisions was much more available to workers

²⁴² European Commission (2020), [Facing the Digital Transformation: are Digital Skills Enough?](#) The Continuing Vocational Training Survey in 2015 for instance shows that only 13% of training by employers is focused on more transversal skills, such as general IT skills, and less than 1% on numeracy and literacy skills.

²⁴³ Particularly when controlling for ageing of the workforce. See OECD (2019), [Employment Outlook: The Future of Work.](#) chapter 3.

with open-ended employment relationship, with some minimum work experience or minimum duration of the employment relationship).²⁴⁴ Employees in SMEs face more often considerable difficulties in organising the training leave practice, i.e. in terms of organisation of the work and possible (temporary) replacements. This is reflected in their lower participation rates in learning. Respondents to the 2020 Cedefop perception survey confirm this possible relation to participation; 90% of respondents at the EU level think that flexible working hours or time off work can encourage more adults to participate in work-related learning and training.

Figure A7.7 - Respondants in agreement that flexible working hours would encourage participation in training – by employment status



Source: [Cedefop Perception survey \(2020\)](#).

The existence of a right to training leave can also reduce the timing constraints that act as barriers to training.

In 2020, a total of 22 of 27 EU Member States had some form of national legislation on paid training leave, of which twelve are bound by the 1974 ILO convention on paid training leave.²⁴⁵ While actual implementation of the provisions for training leave varies considerably, an evidence review shows how the take-up of paid education leave schemes across the EU has been rarely above 1%. This is confirmed by European trade unions in particular, who in the public consultation highlighted the limits of practical implementation of training leave provisions across most Member States. Furthermore, adult learning experts underline that the current way (paid) training leave provisions are organised further contributes to the existing differences in participation between permanent employees and individuals with other types of contracts or unemployed.

1.4 Fragmentation of existing support

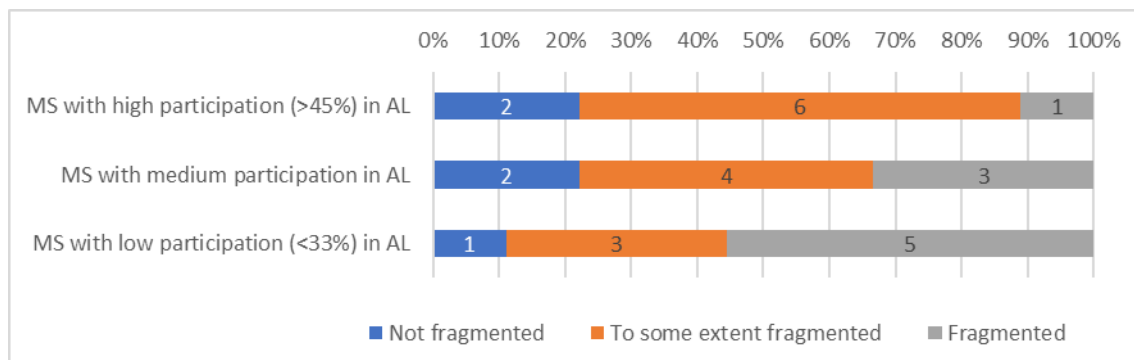
Responsibilities for adult learning policy are often divided across several ministries and agencies (e.g. education, social affairs, labour, migration, justice) and several levels of policy

²⁴⁴ The discussion in this paragraph draw on Cedefop (2012), [Training leave. Policies and practice in Europe](#), and input by the adult learning expert network.

²⁴⁵ ILO (1974), [C140 - Paid Educational Leave Convention](#), 1974 (No. 140).

making (municipal, regional, national)²⁴⁶. This often results in a situation where adult learning policy is fragmented, which may have implications for the effectiveness of support measures.

Figure A7.8 - Overview of adult learning expert mapping – fragmentation of financial support



Source: authors, based on mapping of available instruments conducted by Adult Learning expert network for the purpose of the Impact Assessment on the Individual Learning Accounts initiative.

Fragmentation of support measures is a challenge in a majority of Member States, and is more common in those with lower participation rates. The impacts of the fragmentation that results from too specific support measures become obvious when individuals do not neatly fit into the predefined categories of that policy. Related to this are limitations to the types of training that are often attached to support measures; support measures for training unemployed generally do not cover the cost of longer-term and/or formal education programmes, regardless of the specific needs of the individual.²⁴⁷

The issue of fragmentation is also highlighted as a specific challenge for the sub-sector of adult learning in the workplace. A 2016 mapping by experts in adult learning shows that only two Member States (HU and LU – both with participation rates above the EU average) have comprehensive policies in place supporting adults learning in the workplace, whereas 11 Member States have in place policies that are not sufficiently coordinated or only partially cover the area of learning in the workplace.²⁴⁸

The fragmentation of supporting policies for adult learning particularly poses a problem to effectively encourage participation of those in more vulnerable situations. An isolated policy measure may address a single barrier to participation, but if it does not help lifting the multiple barriers at the same time, it may not effectively help improve participation. Besides coherent financial support for training more vulnerable groups also depend on support for other types of costs, such as those related to subsistence, childcare or transportation. Systems where support is coherently offered are more able to support individuals reconcile private family responsibilities with work and / or training responsibilities, which leads to higher participation

²⁴⁶ European Commission (2018), [Promoting adult learning in the workplace - Final report of the ET 2020 Working Group 2016 – 2018 on Adult Learning](#).

²⁴⁷ Highlighted for instance the German and Italian country reports of Adult learning network.

²⁴⁸ European Commission (2017), *Analysis of self-reported country factsheets from Member States on adult learning in the workplace. Produced by ET2020 working group.*

rates in training, of both women and men.²⁴⁹ In addition, potential beneficiaries, in particular vulnerable groups, need to be aware of the support measures. Fragmented support policies make this more challenging and risk excluding target groups, as it complicates communication efforts when reaching out to them.

Note that fragmentation is not necessarily the same as decentralisation. Decentralised support measures do not necessarily fragment support from the perspective of individuals. As long as individuals can apply for complementary support measures in a single place (either with the central authorities, or decentralised), fragmentation is not an issue.

2. Driver 2: Limited incentives and motivation of individuals

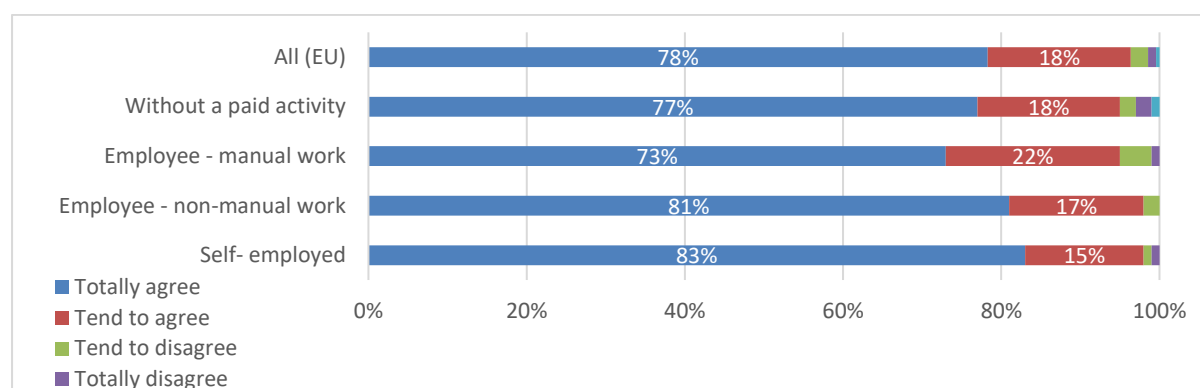
A second driver that limits participation in training is the **limited incentives and motivation** to take up training. Studies consistently identify roughly 80% of non-participants that are *not willing* to participate in training (which corresponds to an estimated 45% of the adult population).²⁵⁰ This makes it particularly relevant to better understand the factors that contribute to individual's motivation.

The value of learning is largely uncontested, not only in terms of its potential to contribute to economic growth and social inclusion, but also at the individual level, in terms of labour market position, wage growth, job satisfaction and wellbeing. The various benefits of learning are widely recognised by European workers. As shown in Figure A7.9 below, no less than 96% of individuals across the EU agreed that learning throughout life is an important value, with only minor differences across Member States (the lowest value still reaches 88%). There are some minor differences when comparing the intensity with which employees doing predominantly manual work agree (73% totally agree) compared to employees whose work is not predominantly manual (81% totally agree). Self-employed appear to value the importance of learning throughout life the most (83% totally agree).

²⁴⁹ Massing and Gaully (2017). [Training Participation and Gender: Analyzing Individual Barriers Across Different Welfare State Regimes](#). *Adult Education Quarterly*, 266-285.

²⁵⁰ We draw mainly on the Adult Education Survey, conducted among all EU Member States. However, similar shares are reported by the *OECD Survey of Adult Skills (PIAAC)* survey, see for instance OECD (2021), [Skills Outlook 2021](#), Chapter 4.

Figure A7.9 – Respondents that agree that lifelong learning is important – by type of work



Source: [Cedefop Perception survey](#) (2020).

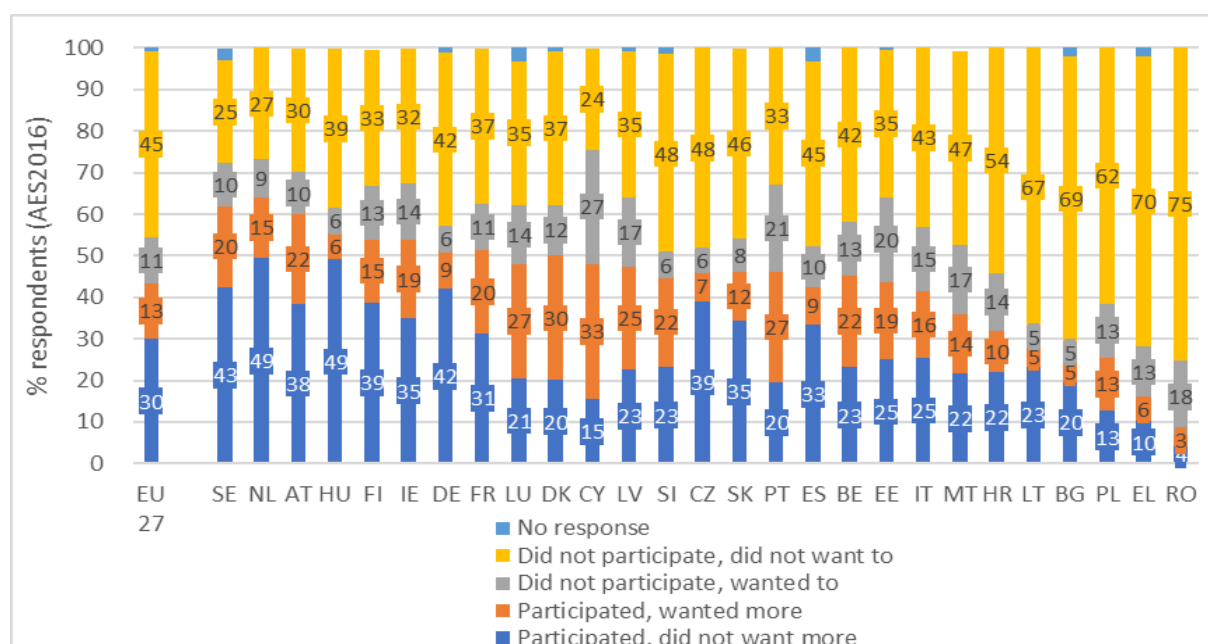
However, existing survey data and evidence from the literature do not allow to determine conclusively if disengagement from training stems from lack of interest in any form of training opportunity or rather indicates a mismatch between the preferences and interests of the individual and the existing supply of training.²⁵¹ An assessment of the former have been a traditional focus of the literature on psychological barriers.²⁵² However, given the high importance adults give to training *in general terms*, it can be assumed that at least a relevant share of disengaged individuals could be motivated to engage in training if the various barriers that contribute to a mismatch and limit their participation are addressed.

This section starts by reviewing in more detail the willingness to participate across Member States. The figure below points to considerable differences across Member States. The share of *non-participants* that are not interested in training varies substantially. These differences can not be explained by looking only at macro-level characteristics of Member States' education and training systems. Instead, it is important to zoom in on micro-level behavioural aspects and how existing policies affect these.

²⁵¹ OECD (2021), [Skills Outlook 2021](#), chapter 4.

²⁵² Cross (1981), *Adults as Learners. Increasing Participation and Facilitating Learning.*; Knapper and Cropley (2000), *Lifelong Learning in Higher Education*. 3rd ed. Kogan Page; Pont(2004), [Improving Access to and Participation in Adult Learning in OECD Countries](#), European journal of education, p.31-45.

Figure A7.10 - Willingness to participate in adult learning – by Member States



Source: [Adult Education Survey 2016](#)

A recent OECD analysis of the OECD Survey of Adult Skills (PIAAC) survey found that workers with atypical contracts were significantly less likely to be willing to participate than workers with a permanent contract²⁵³. Other individual-level factors that influence willingness to train include education level, job tenure and contract status. Individuals that are not in stable employment may not immediately be able to transform the benefits training into wage increases; for them the benefits of training are more diffuse and possibly less visible and offer therefore less of an incentive for participation. This suggests that lack of motivation to engage in training also explains low participation, particularly for more vulnerable groups.

There are a number of reasons that can help explain why the willingness to train is lower among individuals in atypical employment and lower skilled notably the **limited information and transparency** about the available support and training offer, uncertainty about their **quality and recognition in the labour market**, and **insufficient tailoring of training offers to individual needs**.

2.1 Limited awareness of own skills needs

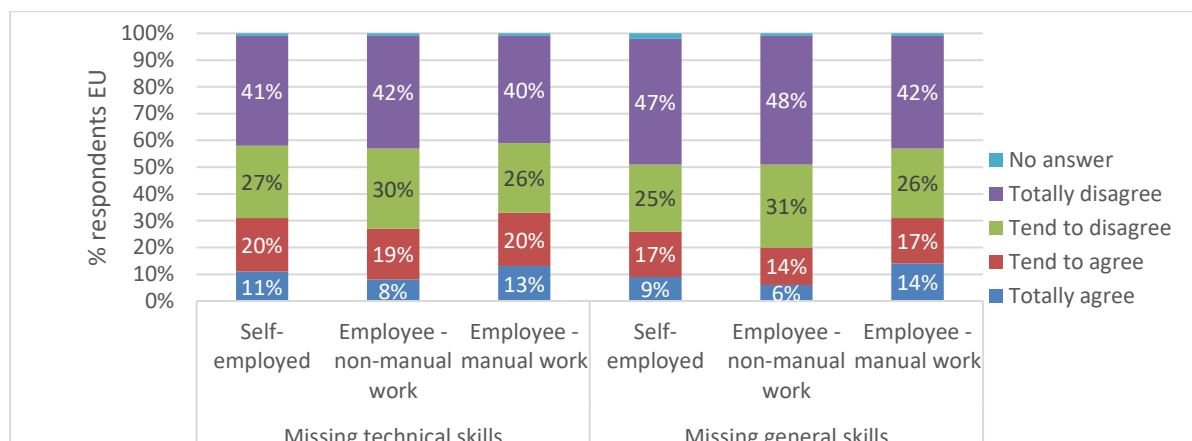
Without sufficient information about the types of training available and the support available to enrol in it, individuals struggle to assess what training could be relevant and how they could benefit it. It can be difficult for individuals to recognize their own learning needs, which makes it even more challenging to subsequently identify relevant training programmes.²⁵⁴ In a recent Cedefop Survey, individuals that do not want to participate in training often indicate not to see the benefits of possible training programmes and do not feel that their competences fall short for their work. Some 28% of all respondents in work say that they lack some technical skills

²⁵³ OECD (2021), [Skills Outlook 2021](#), chapter 4.

²⁵⁴ OECD (2015), [Adults with low literacy and numeracy skills: A literature review on policy intervention](#). OECD Education Working Papers.

and 22% some general skills to carry out their job at the required level, as presented in the figure below. There are some minor differences between workers, depending on their type of work; manual workers in higher numbers indicated that they lack both technical skills (33%) and general skills (31%).

Figure A7.11 - Self-reported missing skills – by type of work



Source: [Cedefop Perception survey](#) (2020).

These findings are also replicated in other sources. Eurofound’s Working Conditions survey shows that 14% of respondents for the entire EU believe that they need further training to cope with daily duties in their work.²⁵⁵ On the employer’s side on the other hand, 77% of companies mentioned in 2019 the scarcity of skilled staff as the most frequent reason to limit long-term investments.²⁵⁶ When interpreting these findings, it is important to be aware of the possible bias of such surveys among both employees and employers. There is always the possibility that employees overstate their skill levels (either deliberately or by lack of actual comparison).²⁵⁷ Employers, on the other hand, may have an incentive to overstate skill shortages, or may experience difficulties in identifying the required skills for other – unrelated – reasons (such as the terms and conditions of its employment offer, instead of the actual supply of skills in the labour market).²⁵⁸ Still, the overall trend suggests that without adequate guidance, workers face challenges determining their own training needs. An individual may not be aware of the types of skills needed, or could for instance review their skills needs based on a relatively short time horizon.²⁵⁹ This perceived lack of urgency can be exacerbated by the fact that it is hard to gauge what impact future developments will have on skills needs in their own jobs or in other

²⁵⁵ Eurofound, [European Working Conditions Survey 2016](#), online data viewer.

²⁵⁶ European Investment Bank (2019), [EIB Group Survey on Investment and Investment Finance 2019: EU Overview](#), p. 19.

²⁵⁷ Cedefop (2021), [Understanding technological change and skill needs: skills surveys and skills forecasting. Cedefop practical guide 1](#), page 21.

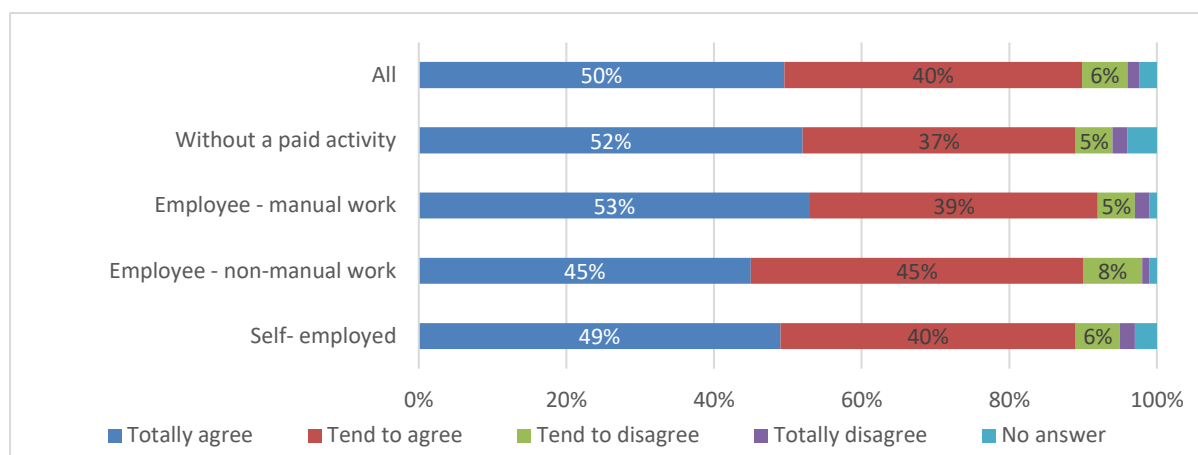
²⁵⁸ Gambin et al. (2016). [Research to understand the extent, nature and impact of skills mismatches in the economy](#). Department for Business Innovation and Skills.

²⁵⁹ Grijpstra et al. (2019). [Belemmeringen voor deelname aan Leven lang ontwikkelen](#). Panteia.

occupations or sectors.²⁶⁰ Guidance and support help influence such attitudes, and the existing support structures in (larger) enterprises for employees are one explanation of the differences in attitudes between individuals in permanent employment and those in more atypical employment situations.²⁶¹

Workers themselves confirm this. A total of 90% of respondents across the EU agree that more information and guidance would encourage more adults to participate in work-related learning and training, with limited differences between respondents from different Member States. 53% of manual workers totally agree, while the group of non-manual employees does so less often (45% totally agree); possibly this group already receives better guidance than manual workers and therefore looks for other types of support.

Figure A7.12 – Respondants that agree that more information and guidance would increase participation – by type of employment situation



Source: [Cedefop Perception survey](#) (2020).

2.2 Limited transparency and information about training offers

Another challenge for participation is to identify training programmes that match training needs. Individuals without concrete support from employers or other forms of guidance face more uncertainties in doing so.

34% of respondents in the EU (totally) disagree that they are well-informed about organised work-related training activities, against a total of 60% that (totally) agrees.²⁶² Those with an employment relation are more positive about the available information on training activities. As can be expected, people in a salaried position considerably more often turn to their

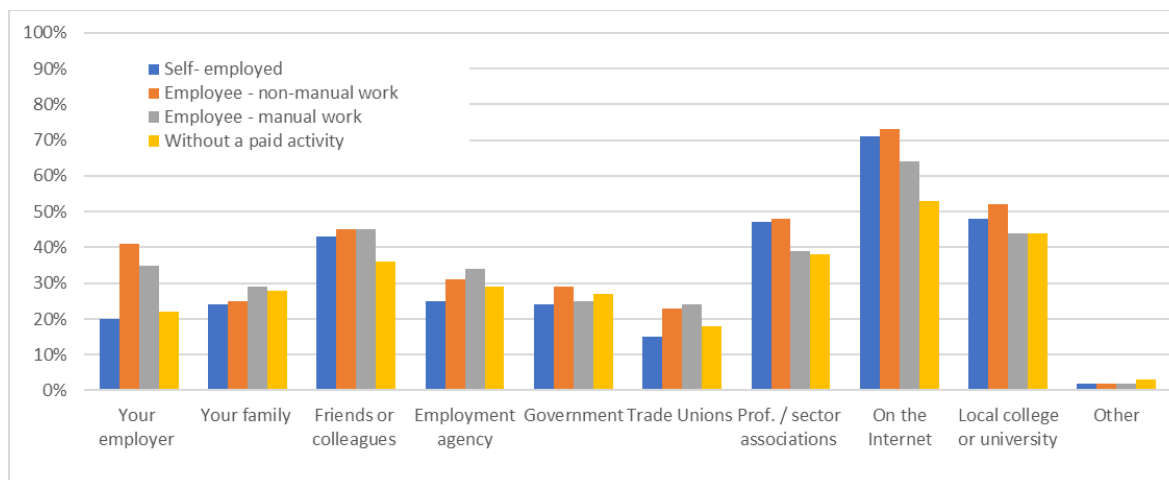
²⁶⁰ Maslowski (2019). [Grenzen aan een leven lang leren](#), Sociaal en Cultureel Planbureau.

²⁶¹ OECD (2011), [Leveraging Training Skills Development in SMEs: An Analysis of the West Midlands, England, UK](#), OECD Local Economic and Employment Development (LEED) Papers.

²⁶² Cedefop (2020), [Perceptions on adult learning and continuing vocational education and training in Europe. Second opinion survey – Volume 1. Member States](#). Cedefop reference series. The remaining 6% did not provide an answer.

employers for advice and guidance (see Figure A7.13).²⁶³ This is also confirmed by results from the Adult Education Survey, which shows that employees slightly more often report to receive support in guidance than other types of workers.²⁶⁴

Figure A7.13 - Possible sources for advice and guidance about adult learning



Source: [Cedefop Perception survey](#) (2020).

Most individuals pointed to internet as the best source about adult learning and CVET.²⁶⁵ While this highlights the potential of internet to empower individual citizens in taking control of their own learning trajectory, it does not always ensure that individuals actually find the types of training they are looking for.

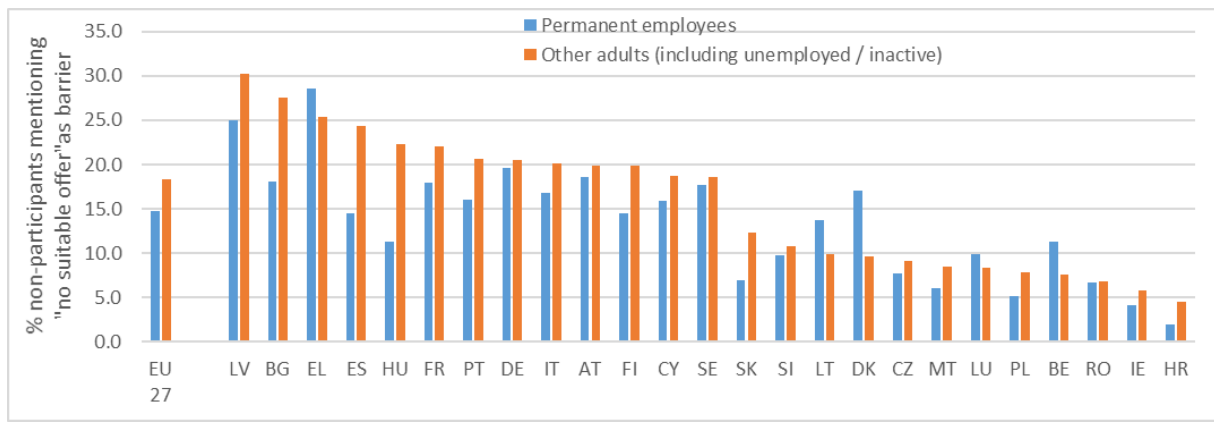
Figure A7.14 below shows the extent to which different groups of individuals are able to find a suitable training offer. In some cases, individuals may not be able to find a suitable offer because it is simply not there; there may be certain supply-side constraints that reduce the availability of relevant training. The differences between different groups suggest that at least to some extent, the ability to find relevant training is related to the types of support in place. A total of 14.7% of individuals with a permanent contract refer to the lack of a suitable offer as reason for not participation in adult learning, against 18.4% of all adults without permanent contracts.

²⁶³ Interestingly, guidance by employment agencies (such as Public Employment Services, or other types of counselling) is mentioned less often as a good source for guidance by unemployed (29%) than individuals in manual work (34%).

²⁶⁴ Not presented in figure here. Based on analysis of special extract of Adult Education Survey 2016.

²⁶⁵ Self-employed and non-manual employees most often point to the internet as the best source for information (71% and 73% respectively), which is considerably lower for manual employees and individuals out of employment (64% and 53% respectively). Cedefop (2020), [Perceptions on adult learning and continuing vocational education and training in Europe. Second Opinion survey – Volume 1. Member States](#). Cedefop reference series.

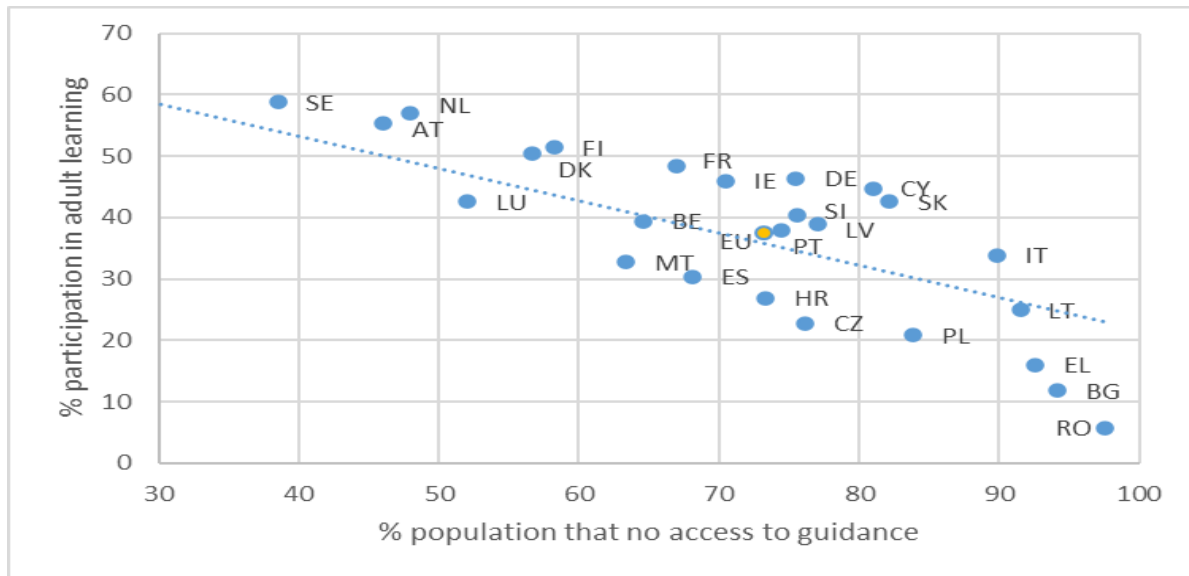
Figure A7.14 - Share of respondents that want to train more and mention lack of suitable offer as a reason



Source: authors' analysis, based on custom extract of [Adult Education Survey 2016](#).

The relevance of ensuring the provision of guidance as a way to contribute to participation in adult learning is further underlined in the figure below, which compares the overall participation rate in adult learning against the share of individuals that had not received information or advice on learning possibilities, also based on the Adult Education Survey. The result is a strong negative correlation, showing that Member States with lower shares of individuals without access to advice / guidance are generally the ones where participation rates are higher.

Figure A7.15 – Rate of participation (last 12 months) and access to free guidance on learning possibilities



NOTE: Correlation presented for aggregated Member State-level values with Pearson's r of -0.752 (significant at $P < .01$). Participation in adult learning in last 12 months, 2016 (excluding guided on the job training).

Source: Special extract from [Adult Education Survey 2016](#)

Policies and practices in the field of career guidance have undergone considerable changes over the last years and increasingly receive policy attention.²⁶⁶ A recent mapping by adult learning experts identified that public or legally mandated offers for career and guidance in learning were present in almost all Member States, as presented in the figure below.²⁶⁷ Despite the broader introduction of such an offer for guidance, the mapping shows that there is still considerable room for improvement, particularly for adults not in permanent employment.

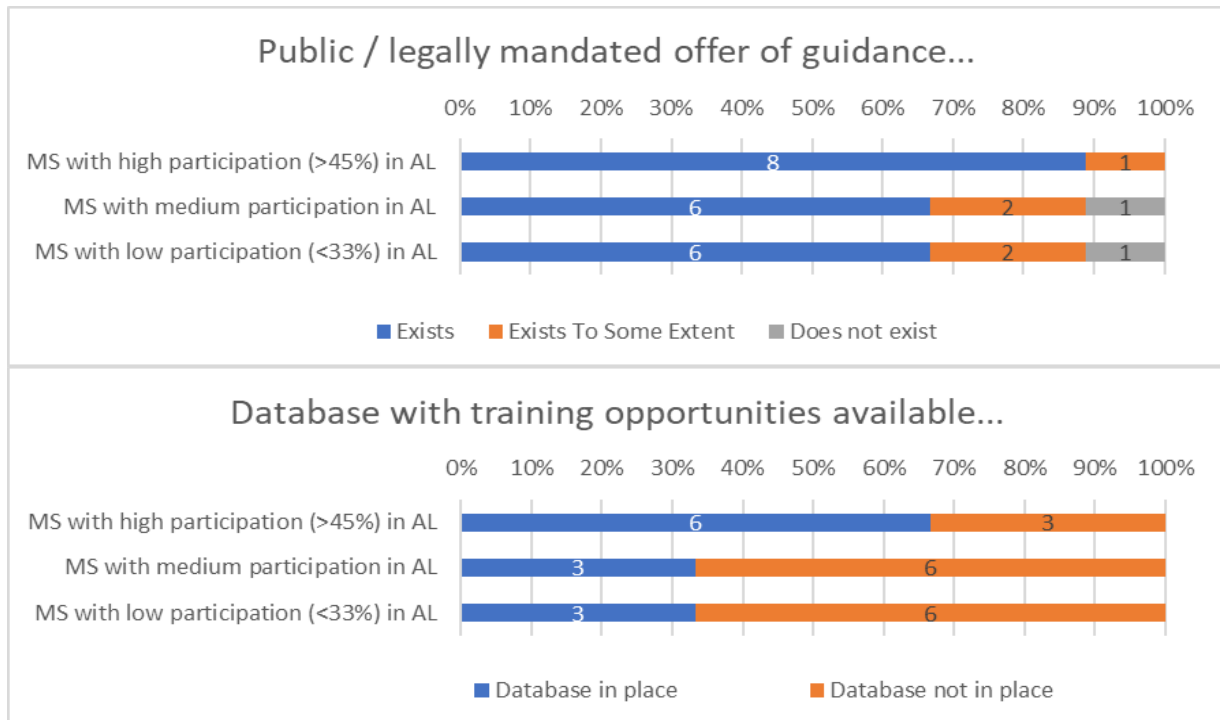
A practical example of how guidance can be offered in direct response to the prominence of the use of the internet in looking for training offer can be an online database that lists training opportunities. As shown in Figure A7.16 below, such a database is available in roughly half of the Member States and more often in Member States with higher participation rates. A review of guidance practices across shows how the offered support is fragmented and does not always benefit all target groups equally.²⁶⁸

²⁶⁶ See for instance European Commission (2020), [Lifelong guidance policy and practice in the EU: trends, challenges and opportunities](#).

²⁶⁷ DG EMPL Adult Learning network expert mapping in 2019 / 2020 in preparation for the IA.

²⁶⁸ See for instance European Commission (2020), [Lifelong guidance policy and practice in the EU: trends, challenges and opportunities](#).

Figure A7.16 - Overview of adult learning expert mapping – availability of guidance and database



Source: authors, based on mapping of available instruments conducted by Adult Learning expert network for the purpose of the Impact Assessment on Individual Learning Accounts initiative.

2.3 Uncertainties about quality and recognition

To provide potential learners with information on content, quality and recognition of training programmes, quality assurance systems have an important role to play, and contribute at least indirectly to participation in learning.²⁶⁹ Across the EU 87% of respondents to a CEDEFOP survey on the matter are of the opinion that increased quality standards would encourage participation in work-related training.²⁷⁰

For this reason, attention for quality standards and quality assurance systems has been on the European agenda for years.²⁷¹ Member States have increasingly implemented regulations and policies to improve quality assurance in adult learning. Particularly under the influence of EQAVET, considerable development and improvements in terms of quality assurance can be identified across the EU.²⁷² However, EQAVET developments tend to be restricted to initial VET programmes, and a majority of EU countries has not put in place a system-level quality

²⁶⁹ European Commission (2019), [Adult learning policy and provision in the member states of the EU: a synthesis of reports by country experts](#), p.119.

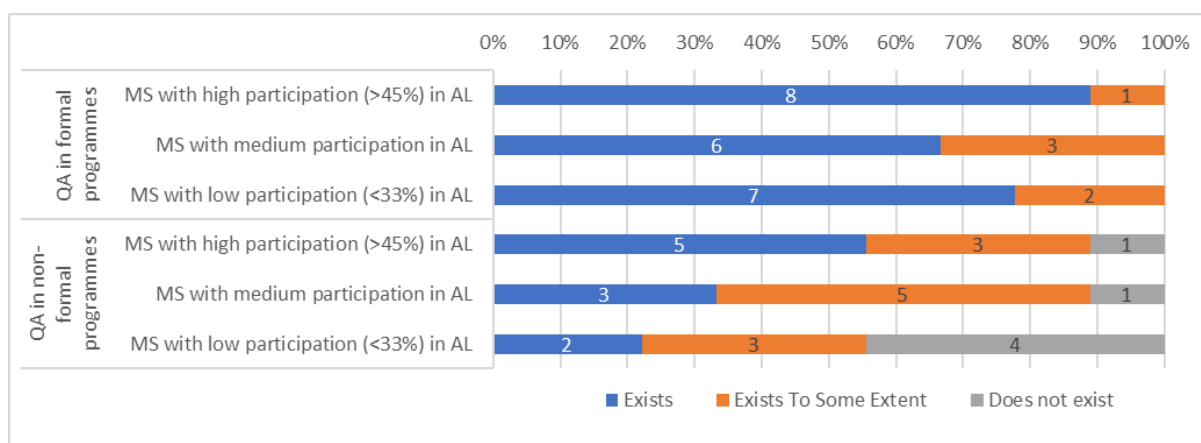
²⁷⁰ Cedefop (2020), [Perceptions on adult learning and continuing vocational education and training in Europe. Second Opinion survey – Volume 1. Member States](#). Cedefop reference series.

²⁷¹ European Commission (2013), [Developing the adult learning sector: Quality in the adult learning sector](#).

²⁷² See the background paper of the [EQAVET Peer Learning Activity on Quality Assurance in continuing vocational education and training \(CVET\)](#) on 27-28 April 2021.

assurance framework for non-formal training.²⁷³ Being non-formal (i.e. outside the formal education system), it typically comes with less regulations, requirements, and standards. Even so, there are differences in quality approaches across the EU.²⁷⁴ The recent mapping of formal and non-formal learning by DG EMPL’s Adult learning expert network highlights these differences. As shown in the figure below, quality assurance for formal programmes is consistently more established than in non-formal programmes. At the same time, quality assurance is also more often found for nonformal programmes in Member States with higher participation rates in adult learning.

Figure A7.17 - Overview of adult learning expert mapping – availability of quality assurance mechanisms in formal and non-formal programmes



Source: authors, based on mapping of available instruments conducted by Adult Learning expert network for the purpose of the Impact Assessment on Individual Learning Accounts initiative.

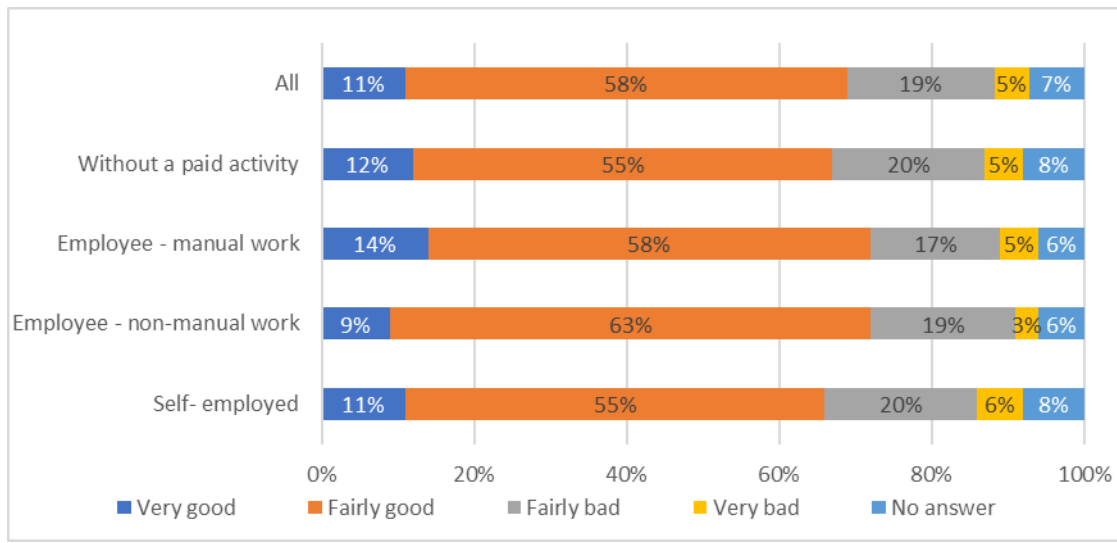
The availability of quality assurance for adult learning programmes can increase transparency and communicate trust in the quality of the education on offer. The absence of such provisions is reflected in individual’s perceptions of the quality of adult learning in their countries. Cedefop’s recent perception survey shows that, although people more often describe quality of adult learning as good (69%) rather than bad (24%), substantial number of citizens in several EU countries are not confident about the quality of their national adult learning system, even in some of those which have quality assurance provisions for non-formal learning programmes.²⁷⁵ No significant differences appear between different types of workers and workers with different types of contracts.

²⁷³ EQAVET (2020), *Peer Learning Activity on Quality Assurance in continuing vocational education and training: background paper*.

²⁷⁴ OECD (2021), *Improving the Quality of Non-Formal Adult Learning: Learning from European Best Practices on Quality Assurance*, *Getting Skills Right*.

²⁷⁵ Cedefop (2020), *Perceptions on adult learning and continuing vocational education and training in Europe. Second Opinion survey – Volume 1. Member States. Cedefop reference series*.

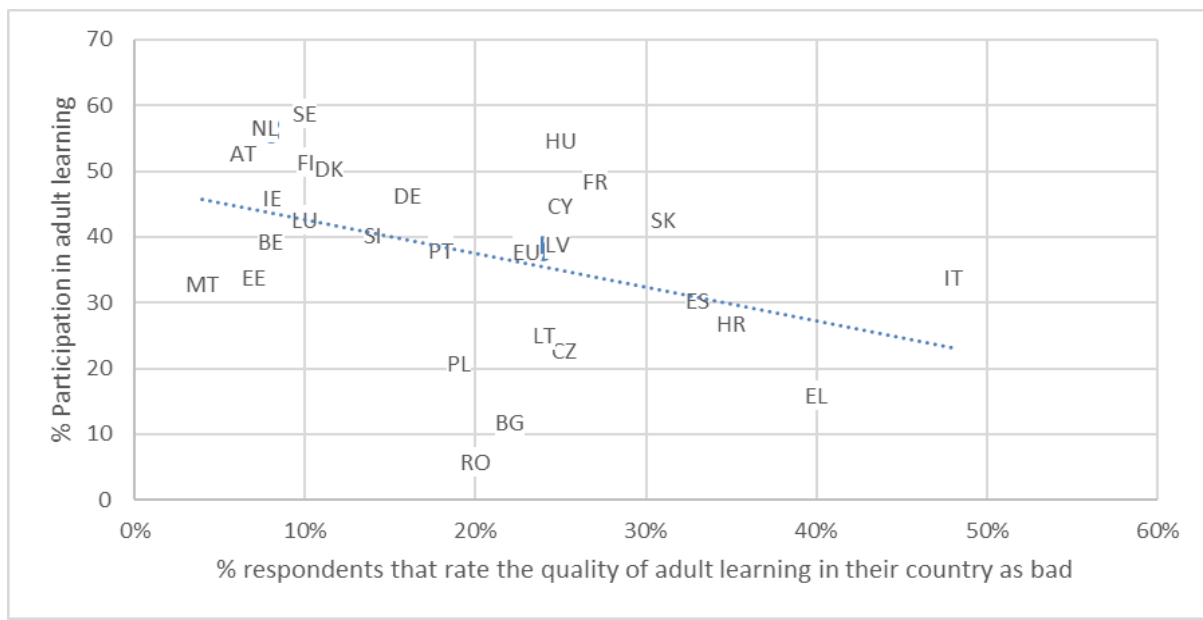
Figure A7.18 - Perceptions about quality of adult learning – by type of employment situation



Source: [Cedefop Perception survey](#) (2020).

Member States with higher participation rates in adult learning are also by and large the Member States where learners are more positive about the quality of adult learning system (Figure A7.19). Even if there are no data to determine the exact causal mechanism, it can be concluded from the figure below that quality is a relevant factor.

Figure A7.19 – Participation and share of respondents that rate quality of adult learning as bad



Note: correlation analysis shows Pearson's r of $-.412$, significant at $p < .05$

Source: authors' analysis, based on custom [Adult Education Survey 2016](#) extract (participation in the last 12 months, excluding guided on the job training) and [Cedefop Perception survey](#) (2020).

In addition to the quality assurance, it is just as important that the learning outcomes of training programmes are recognised, and that future learners know in advance how the anticipated learning outcomes will be assessed by a potential future employer.

Particularly in non-formal training however, uncertainties about the recognition of learning outcomes are common. A recent OECD working paper points that the productivity gains for companies from non-formal training of employees substantially outweigh the wage effect for individuals, partly because individuals are not able to communicate the value of this training to other employers²⁷⁶. If such uncertainties about the value of learning outcomes persist, these can have a demotivating effect on individuals to participate in training, particularly if they have to cover (part of) the costs themselves. Without a common standard to signal the value of training, individuals may not fully be able to recoup their investment of time (and possibly money) in the form of higher wages or better career prospects more generally.

Systems for the validation of prior learning can be a way to offer such a ‘common standard’, allowing individuals to prove that they acquired certain competences or learning outcomes. However, like quality assurance, provisions for and access to such systems of validating prior learning vary considerably across and within countries. Individuals and employers are too often unaware of the potential value of newly acquired learning outcomes.²⁷⁷

In this respect, the recent evaluation of the Council Recommendation on the validation of non-formal and informal learning²⁷⁸ points to substantial progress, but also identified the limits of its support for individuals to ensure a better use of validation opportunities. Progress has been particularly fragmented in terms of the provision of information on available validation opportunities. In response, the evaluation highlights how for disadvantaged groups, the costs, complexity and length of validation processes, service fragmentation (e.g. offered to for certain qualifications, or certain groups), and the perceived low value of validation in certain countries continue to limit opportunities for individuals to take advantage of them.²⁷⁹ In just over half of Member States experts identified relevant policies, with one-third where these existing initiatives for recognition of prior learning were identified as a strength.²⁸⁰

2.4 Insufficient tailoring of training offers to individual needs

The training offer may insufficiently respond to specific individual needs, for instance in terms of form and length and is unlikely to make further positive contributions to individual enrolment in such training, even if they are actively looking for that training. Another possibility is that the content of adult learning programmes is insufficiently tailored to individual needs. Adult learning needs to be specifically tailored to trigger adults to engage in learning, particularly when addressing more disadvantaged learners.

²⁷⁶ OECD (2019), [Returns to different forms of job related training](#), OECD Social, Employment and Migration Working Papers.

²⁷⁷ OECD (2010), [Recognising Non-Formal and Informal Learning: Outcomes, Policies and Practices](#).

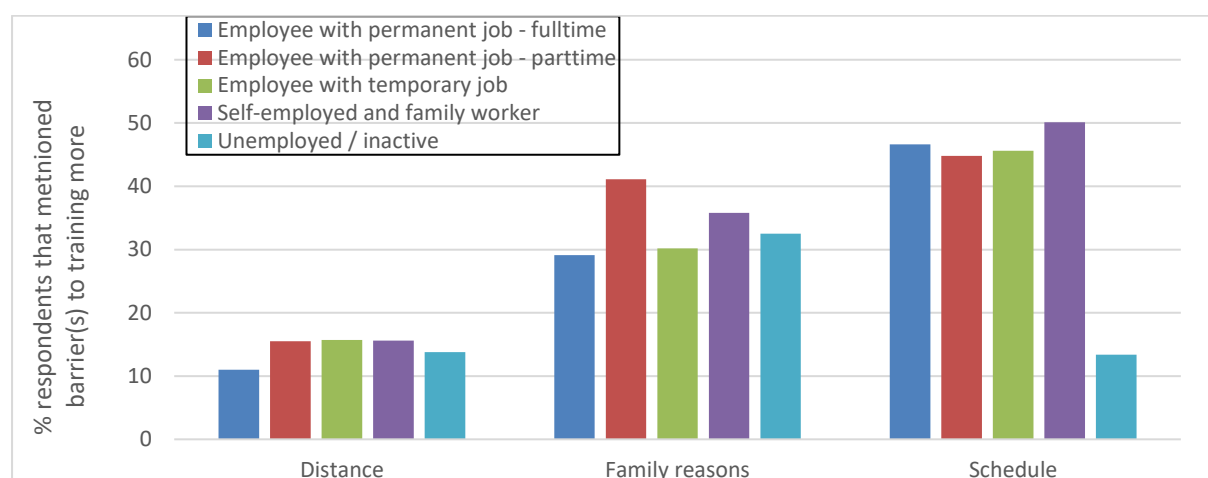
²⁷⁸ European Commission (2020), [Study supporting the evaluation of the Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning](#).

²⁷⁹ European Commission (2020). [Study supporting the evaluation of the Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning](#).

²⁸⁰ European Commission (2019), [Adult learning policy and provision in the member states of the EU: a synthesis of reports by country experts](#), p.114.

Difficulties to combine training with other commitments – such as work, family responsibilities, or other – is consistently among the most cited reasons of individuals that do not participate in training.²⁸¹ These difficulties are more commonly found among atypical workers, who as a consequence participate less in adult education programmes.²⁸² Conflicting family responsibilities feature as an important barrier to participation in adult learning, particularly for part-time workers (41.1%) and to a lesser extent for self-employed (35.8%), as shown in the figure below. Self-employed also mention scheduling conflicts often (50.1%). Intuitively, scheduling problems are mentioned considerably less often by unemployed or inactive individuals (13.4%), compared to other groups.

Figure A7.20 - Share of respondents that want to train more and mention distance, family and/or schedule as a barrier



Source: authors' analysis, based on [Adult Education Survey 2016](#).

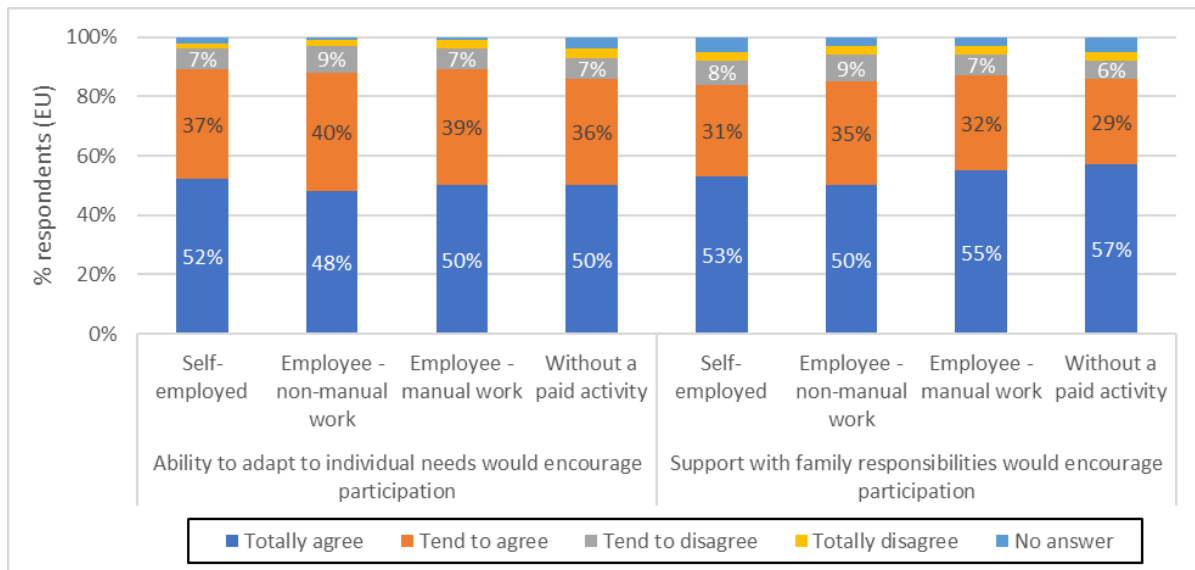
Other practical reasons, such as the distance of the training location from home or workplace are also relevant, yet are mentioned less often. Learners indicated in Cedefop's most recent perception survey on adult learning and CVET in Europe that better adaptability of training to individual learning needs would encourage participation in work-related training.²⁸³ Self-employed individuals were slightly more pronounced about the potential to encourage participation (52% totally agree) than employees (48% of non-manual workers and 50% of manual workers totally agree). Attention for family responsibilities as a way to encourage participation in adult learning is highlighted most by individuals out of paid employment (57% totally agree), and slightly less so by non-manual employees (50% totally agree).

²⁸¹ Cedefop (2020), [Perceptions on adult learning and continuing vocational education and training in Europe. Second Opinion survey – Volume I. Member States](#). Cedefop reference series.

²⁸² OECD (2019), [Individual Learning Accounts: Panacea or Pandora's Box?](#)

²⁸³ Cedefop (2020). [Perceptions on adult learning and continuing vocational education and training in Europe. Second Opinion survey – V. 1. Member States](#). Cedefop reference series.

Figure A7.21 – Factors that could encourage participation – by type of work



Source: [Cedefop Perception survey](#) (2020).

Difficulties in tailoring delivery mode to trigger adults to engage in learning. Tailoring the mode of delivery requires an understanding and responding to the practical barriers potential participants in learning encounter and to what makes learning easier or more difficult for some, and can make learning a desirable activity.²⁸⁴ To overcome this challenge, some Member States have already worked on increasing flexibility of training offer, for instance by encouraging the offer of different forms of distance learning, forms of blended learning, modular and part-time learning provision, or allowing providers to offer the types of training that best fit their learners' needs. Others put in place new forms of entrance exams for those who do not fulfil the traditional entrance criteria but who have gone through VET and apprenticeship routes. A review of recent policy developments by the Adult Learning Expert network shows that the results of these efforts are not uniform, and some Member States have not shown much progress in supporting the introduction of more tailored training programmes. In a well functioning market, education and training providers would have a clear incentive to offer programmes tailored to the needs of individuals. However, in the current context, it is not the individual, but their employer or Public Employment Services that choose training programmes. As a result, adult learning programmes are still primarily offered in more traditional forms of training. For just under half of Member States, examples were identified of introducing innovation in the delivery of learning.²⁸⁵

Also, an increase in the use of digital learning tools could further address this particular barrier, for instance through blending innovations with more traditional forms of adult learning. Such developments come in response of persisting differences between Member States in adult skill

²⁸⁵ European Commission (2019), [Adult Learning policy and provision in the Member States of the EU](#), A synthesis of reports by country experts, page 118.

²⁸⁵ European Commission (2019), [Adult Learning policy and provision in the Member States of the EU](#), A synthesis of reports by country experts, page 118.

levels, access to ICTs, the availability of relevant content, and in the development of educators' innovative learning skills and competences.²⁸⁶ Such differences have considerable implications for the possibilities of increasing flexible training offer for adult learning. In recent years, attention for digital tools to increase the flexibility of adult learning has considerably increased, for instance reflected in the EC's first Digital Action Plan, adopted in 2018 and its successor launched in 2020.²⁸⁷

The response to COVID-19 restrictions and school closures forced a shift to emergency modes of digital education and training, resulting in a large number of adult learners dropping out during the transition to online learning and a drop in overall adult learning participation as measured in the Labour Force Survey (for EU-27, from 10.8% in 2019 to 9.2% in 2020).²⁸⁸ While it is too soon to draw firm conclusions on the impacts of this response on participation figures, participation is likely to rebound once COVID-19 restrictions are lifted and the induced push towards increasing online provision provides opportunities for an improved tailoring of adult learning provision to individual needs.

ANNEX 8: BASELINE SCENARIO

This Annex presents relevant existing or planned instruments and initiatives at EU and Member State levels, and discusses the extent to which they can be expected to make progress towards the specific objectives of this initiative in the baseline scenario, i.e. in the absence of additional policy efforts resulting from the present initiative. It concludes with a discussion of how adult learning participation rates and inequalities across groups are expected to evolve until 2030 in the baseline scenario, against which the expected impacts of the policy packages are assessed.

1. The existing EU instruments

Adult learning has always been part of the EU vocational training policy, though for a long time it has only meant skills development of adult workers. The 1963 Decision on a common vocational training policy²⁸⁹ stated that its ten “general principles must deal with the training of young persons and adults” (first principle) in the workforce and promoted vocational training “suitable for the various stages of working life” (second principle, paragraph (f)). Adult vocational skills development retains all its relevance today: while the concept of vocational education and training (VET) has evolved, the 2020 Council Recommendation on VET²⁹⁰, an action of the European Skills Agenda, “aims to equip young people and adults” with the skills required on the labour market. The Recommendation is likely to generically contribute to

²⁸⁶ European Commission (2015). [Adult Learners in Digital Learning Environments](#) - Final Report.

²⁸⁷ [Digital Education Action Plan](#) (2021-2027).

²⁸⁸ [Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Digital Education Action Plan 2021-2027](#) Resetting education and training for the digital age (COM/2020/624 final) and Eurostat [trng_lfse_01](#).

²⁸⁹ [Council Decision 63/266/EEC of 2 April 1963 laying down general principles](#) for implementing a common vocational training policy.

²⁹⁰ [Council Recommendation of 2 November 2020 on vocational education and training](#) (VET) for sustainable competitiveness, social fairness and resilience, (2020/C 417/01), p.1.

increase participation in training, including adult participation. However, while it invites Member States to make use of EU funds and programmes for reforms or investments in VET, it does not address the issue of financial support to individuals, which would therefore not be part of its implementation.

Since 2000, several European policy initiatives have highlighted the relevance of adult learning in a wider sense, including, but not limited to vocational skills development: the memorandum on lifelong learning in 2000²⁹¹, the Barcelona Council conclusions of spring 2002²⁹², the Communication on making lifelong learning a reality in 2002²⁹³ and the Council Resolution of 27 June 2002 on lifelong learning²⁹⁴, the 2006 Commission Communication and the 2007 Action plan on adult learning²⁹⁵, the Council conclusions on adult learning of 2008.²⁹⁶ In 2011, the Council adopted a resolution on a renewed European agenda for adult learning²⁹⁷, which aimed to bring fresh impetus to this important area of education, setting out a long-term vision in this field up to 2020, integrated in the ET 2020 strategic framework for policy cooperation in education and training²⁹⁸, and established several short-term priorities to be achieved by 2014, then revised in 2015. The agenda has been the EU policy framework for adult learning in the last decade²⁹⁹. In these documents, the concept of adult learning is extended to the entire adult population, going beyond those active in the labour market. The baseline scenario hence covers well EU policy support for the provision of adult learning, ie. the “supply side”. However, this EU policy support does not directly address the need to support the demand for participation in learning. This is why the policy options presented in this report focus on the demand for learning.

One EU initiative that was aimed among other to support the demand in learning is the **Council Recommendation on validation of non-formal and informal learning**³⁰⁰, which was adopted in 2012. It called for Member States to take action by 2018 to ensure that everybody had access to validation opportunities. Such opportunities can support the demand of adult learning. On the one hand, when validation opportunities are available their main beneficiaries

²⁹¹ [Commission Memorandum of 30 October 2000 on lifelong learning](#) (SEC(2000) 1832 final).

²⁹² [Presidency conclusions, Barcelona European Council 15 and 16 March 2002 \(C/02/930\)](#).

²⁹³ Communication from the Commission [Making a European are of lifelong learning a reality, \(COM\(2001\)678 final\)](#).

²⁹⁴ [Council Resolution of 27 June 2002 on lifelong learning \(2002/C 163/01\)](#)

²⁹⁵), [Communication from the Commission on adult learning: it is never too late to learn, \(COM \(2006\) 614 final\)](#); [Action Plan on Adult Learning: it is always a good time to learn, \(COM \(2007\) 558 final\)](#).

²⁹⁶ [Council conclusions of 22 May 2008 on adult learning \(2008/C 140/09\)](#)

²⁹⁷ [Council Resolution of 28 November 2011 on a renewed European agenda for adult learning, \(2011/C 372/01\)](#), p. 1.

²⁹⁸ Established through the [Council Conclusions of 12 May 2009 on a strategic framework for European cooperation in education and training \(ET 2020\)](#).

²⁹⁹ Cf. the [Report of the ET 2020 Working Group on Adult Learning \(2018-2020\)](#).

³⁰⁰ [Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning](#).

are adult workers, who may then be more motivated to join organised learning opportunities; on the other hand, the lack of validation opportunities is one of the reasons why people may not engage in learning pathways, as the skills they would develop risk not being recognised. While good validation opportunities might encourage more adults to participate in learning, engaging in validation may be a burden for individuals, demanding time, effort and often money. Indeed, the evaluation of the 2012 Recommendation on validation found that “*if there is no active support to individuals, such as paid leave or a financial contribution, they may not be able to engage in validation*”. The evaluation further finds that “*fewer people than expected have engaged in validation, despite larger provision of opportunities and guidance*” and concludes that “*Providing more validation opportunities is not enough. Providing support to individuals is necessary*”.³⁰¹ The Recommendation itself does not include any provision about financial support to individuals for the validation of skills or any other purpose and hence the baseline scenario here also differs from the policy options presented in this report, which are complementary to the existing provisions on validation.

Guidance, as promoted at policy level by the 2008 Council Resolution on lifelong guidance³⁰² and in practice by the Euroguidance network³⁰³, can be a major factor in increasing demand for learning, helping individuals and organisations to analyse their learning needs, find reliable information on available opportunities and choose the most appropriate pathways. Under the baseline scenario, the EU will continue to support Member States in their guidance provision. Good quality guidance may generically lead to increased participation in training and reduction of skill gaps, and may help individuals take advantage of financial support, if such support is available. However, both policy options presented would enable a better integration of guidance into adult learning systems than the baseline scenario.

The **2016 Council Recommendation on Upskilling Pathways**³⁰⁴, an action of the 2016 New Skills Agenda for Europe³⁰⁵, is the major latest EU legislative action in adult learning policy. With it, Member States agreed to adopt a strategic and coordinated approach to providing joined-up learning opportunities to the EU’s 61 million low-skilled adults. It aims to support adults with low levels of qualifications to enhance their basic skills (i.e. literacy, numeracy and digital skills), and/or to acquire a broader set of skills by progressing towards higher qualifications. Upskilling Pathways provide support for low skilled and low qualified adults to have access to upskilling opportunities. The concept of an easily accessible pathway comprises three steps: (1) skills assessment; (2) tailored learning offer; and (3) validation and recognition. The recommendation also addresses enabling conditions, such as outreach, guidance and

³⁰¹ Commission Staff Working Document, [Evaluation of the Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning](#), (SWD (2020) 121), pp. 41-43.

³⁰² [Resolution of the Council and of the Representatives of the Governments of the Member States, meeting within the Council of 21 November 2008 on better integrating lifelong guidance into lifelong learning strategies](#).

³⁰³ The Euroguidance network provides, since 1996, local counsellors with assistance, training and information resources on learning or working in another Member State.

³⁰⁴ [Council Recommendation of 19 December 2016 on Upskilling Pathways](#): New Opportunities for Adults.

³⁰⁵ Communication from the Commission on a [New Skills Agenda for Europe](#): Working together to strengthen human capital, employability and competitiveness, (COM(2016)0381 final).

financial support should be an intrinsic part of this process. The 2019 report on implementation of the Recommendation shows the variety of policy responses that can be identified at the national level. Some Member States are integrating the principles in existing (reviews of) lifelong learning policies, employment strategies or national skill strategies, or in their existing policies in the field of adult education. Some Member States have put in place dedicated pilot projects and initiatives, sometimes funded through European funds. The report shows that these often lack emphasis on outreach and guidance. However, people furthest away from the labour market, who face multiple barriers, would profit more from the involvement of a wider range of actors, including social services. The report also indicates that the three basic skills literacy, numeracy and digital skills are often not explicitly addressed by these initiatives. Instead, vocational and job specific skills for employment emerge most prominently.

While the Council Recommendation on Upskilling Pathways also aims to increase participation in adult learning, it is focused on basic skills and has a narrow target group (low skilled adults). Hence, the policy options presented above offer an opportunity to extend the scope of action currently foreseen in the baseline scenario. Furthermore, the Recommendation does not mention financial support to individual learners, even though one of the recommendations to Member States mentions that support measures could include “direct support to learners”. The baseline scenario hence differs from the two policy options presented in this report, which both propose financial support to individuals.

In addition to the instruments presented above, the baseline scenario foresees a number of political documents, which call upon the EU and Member States to upscale skills policies.

- The **European Pillar of Social Rights** presented by the Commission and endorsed by Member States in 2017³⁰⁶ includes as its very first principle the right of everybody to good quality and inclusive education, training and lifelong learning, enabling people “to participate fully in society and manage successfully transitions in the labour market”, while its fourth principle, focusing on employment, states that everybody had a right to re-qualification.
- **The Commission Communication on a European Skills Agenda**³⁰⁷ for Sustainable Competitiveness, Social Fairness and Resilience published in July 2020, after the COVID-19 pandemic had started having a major impact on the European economy and society, was largely organised around the need for upskilling and reskilling adults to convert the huge societal challenges brought by the digital and green transitions into opportunities for a prompt recovery and sustainable growth. The European Skills Agenda specifically envisaged four targets to be achieved by 2025, all related to adult skills development; participation in learning in one year of adults in general (50 %), of low qualified adults (30%) and of unemployed (20 %) with a four week reference period), as well as the share of adults with at least basic digital skills (70%). The

³⁰⁶ [Interinstitutional Proclamation on the European Pillar of Social Rights](#), (2017/C 428/09).

³⁰⁷ [Commission Communication on a European Skills Agenda for Sustainable Competitiveness, Social Fairness and Resilience](#), (COM(2020) 274 final).

European Skills Agenda specified that the targets should be monitored within the framework of the European Semester process and by disaggregating data per gender.

- The **European Pillar of Social Rights Action Plan**³⁰⁸, released by the Commission in February 2021, sets as one of its three headline targets that by 2030 that share of adults participating in learning in one year should be 60 % and, as a complementary target, 80% of adults should have basic digital skills. Confirming the relevance of adult learning to support resilience and recovery in a time of transitions, the EU Heads of State and Governments on 8 May 2021 in their Porto Declaration and then the European Council on 25 June 2021³⁰⁹ welcome the headline targets of the Action Plan. Following the crisis generated by the COVID-19 pandemic, increasing participation in adult learning has become one of three main objectives of social policy, together with increasing employment and reducing poverty.
- In March 2021, the Commission adopted a **Recommendation on effective active support to employment**³¹⁰, which invited Member States to develop policy packages organised around three components. The second component aims to foster upskilling and reskilling opportunities and support measures.
- Individual learning accounts feature in some of these recent policy documents as follows: The European Skills Agenda is the first EU policy document that suggests the opportunity for individual learning entitlements. In its action 9 the Commission declares its intention to assess how a possible European initiative on individual learning accounts can support participation of working age adults in training and how this could be complemented by enabling factors.
- The Council 2020 employment guidelines, under guideline 6 on access to employment and skills, invites Member States to “strengthen the provisions on individual training entitlements and ensure their transferability during professional transitions”.³¹¹
- The Council Recommendation on VET mentioned above (Action 4 of the European Skills Agenda) and the Osnabrück Declaration³¹² included among the short-term deliverables 2020-2025 at EU level the exploration of “financial and non-financial incentives for IVET and CVET addressing adult learners”.

³⁰⁸ [European Pillar of Social Rights Action Plan](#), (COM(2021) 102 final).

³⁰⁹ “the European Council welcomes the EU headline targets of the European Pillar of Social Rights Action Plan, in line with the Porto Declaration”, Council of the European Union (2021), [European Council conclusions, 24-25 June 2021](#).

³¹⁰ [Commission Recommendation of 4.3.2021 on effective active support to employment \(EASE\) following the COVID-19 crisis, \(C\(2021\) 1372 final\)](#).

³¹¹ [Council Decision \(EU\) 2020/1512 of 13 October 2020 on guidelines for the employment policies of the Member States](#), p.22.

³¹² [Osnabrück Declaration](#), endorsed on 30 November 2020 by the Ministers in charge of vocational education and training of the Member States, the EU Candidate Countries and the EEA countries, the European social partners and the European Commission.

- The European Pillar of Social Rights Action Plan announced the Commission’s intention to present in Q4 2021 “an initiative on Individual Learning Accounts to overcome barriers to access to training and to empower adults to manage career transitions”.
- In March 2021 the Commission Recommendation on effective active support to employment suggests Member States to provide adults “with entitlements for quality-assured training and career guidance”.

Although some of the policy options presented in this report are reflected in these initiatives, yet they do not offer concrete suggestions to Member States on implementation. Therefore, the policy options presented in this report go clearly further than the baseline scenario.

Other recent EU initiatives in the area of education, training, skills and qualifications complement the policy options presented in this report:

- The 2017 Council recommendation on the **European Qualifications Framework for lifelong learning**³¹³, bringing forward the instrument first established in 2008, promotes the transparency and quality of qualifications.
- The 2018 Decision on a common framework for the provision of better services for skills and qualifications (**Europass**), supports the transparency and understanding of skills and qualifications acquired in formal, non-formal and informal settings and facilitates information flows among learners, learning providers, workers, employers and other actors.

Both initiatives can support the effectiveness of the policy options presented in this report, by facilitating the understanding of the learning outcomes acquired in the learning opportunities foreseen by these policy options. However, these initiatives do not address the issue of financial support to individuals for learning purposes and would not allow the baseline scenario to reach the specific objectives of this initiative.

Another recent major initiative, the **Pact for Skills**³¹⁴, launched in November 2020, aims at mobilising private and public stakeholders to take concrete action for the upskilling and reskilling of people of working age, and, when relevant, pool efforts in the partnerships.

In the baseline scenario, the EU will continue to support adult learning through its **funding instruments**. Throughout the 2021-2027 period, the European Social Fund+, with a budget of €88 billion, will remain an important funding source for national up- and reskilling activities. Other programmes such as Erasmus+, Horizon Europe, Digital Europe, the European Regional Development Fund, the Just Transition Fund, the Brexit Adjustment Reserve, the Modernisation Fund and InvestEU will also support this objective. These will complement the support provided under the Recovery and Resilience Facility, whereby the prominence of individual training entitlements in some of the national plans reflects the common challenges

³¹³ Council recommendation of 22 May 2017 on the [European Qualifications Framework for lifelong learning](#) and repealing the recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning.

³¹⁴ [Pact for Skills](#).

presented in this report (Table A8.1). However, they cannot promote reforms in all Member States with a common framework which would facilitate the set-up of effective support systems, maximising the positive effect on increasing participation on training.

Table A8.1: Skills and individual training entitlements in the Recovery and Resilience Plans of Member States

Skills and adult learning actions take a prominent role in the Member States' **Recovery and Resilience Plans**. Among the 18 Member States' Plans that have been endorsed by the European Commission by August 2021, 7 have planned actions to support training entitlements for individuals, such as individual learning accounts or vouchers (Belgium, Croatia, France, Greece, Latvia, Lithuania, Luxembourg). Their measures are summarised below:

In Belgium, at the federal level, the learning account reform consists of three measures: i) a pathway ensuring that from 2024, all workers are entitled to an average of 5 days of training per year; (ii) developing tax advantages for companies which provide employees with more hours of training than those already provided for by law and (iii) removing, in consultation with the federated entities, obstacles to participation in training for workers in temporary unemployment. The RRF sets a target of 25 000 workers in long-term or structural temporary unemployment to have received training from the regional employment services to reintegrate in the labour market. Further actions at the level of the federated entities will strengthen these measures.

Croatia plans to introduce a voucher system for adult education and upskilling, to be used in quality-assured adult learning programmes that are aligned with the Croatian Qualifications Framework. Among the 30 000 planned beneficiaries are both the employed and the unemployed, of which at least 12 000 people who are long term unemployed, inactive, or young people not in employment, education or training. The new system aims to contain a skills mapping catalogue and an IT application for managing and awarding vouchers.

France plans to top up workers' entitlements on the already existing individual learning accounts ("*Compte personnel de formation*") with a €1 000 credit, which may be used for trainings linked to digital skills or digital careers. Around 400 trainings have been authorised for this use, which may be attended during working hours, provided the employer agrees. Once the training has been completed, the cost is paid to the training body by the *Caisse des Dépôts et Consignations*, in charge of the management of the French ILAs. The measure aims to train 25 000 individuals until the end of 2021. The total cost of the measure is €25 million.

Greece plans to utilise Lifelong Skilling Accounts (LSAs) as one of the tools for continuous training, based on individualised needs. It will be based on a revised quality assurance system through a new National Eligible Training Provider List, and an upgraded labour market diagnosis mechanism. The reform also plans to establish a National Skills Council for an annual update of the National Skills Strategy. The reform is accompanied by an investment

in horizontal skilling programmes for 500 000 participants and aims at providing a) baseline and medium-level digital skills, b) green skills and c) financial literacy skills.

Latvia plans to develop the ILAs concept for adult learning, aiming to pilot it for around 3 500 adults to develop digital skills. As part of the project, an online platform in Latvian will be established to launch the ILAs pilot, targeting both employed and unemployed who will have their personal ILAs set up and funded by the state. The platform will host around 170 learning modules, including from international sources and translated into Latvian. The project is expected to enable access to a wider scope of learning content by making use of digital technologies and remote learning, in combination with personalized coaching, and thus resulting in a more tailor-made training.

Lithuania plans to introduce, as a RRF reform, a one-stop-shop model for lifelong learning that will consolidate the currently fragmented framework of adult skills development, including both VET and higher education. The new model aims to improve quality assurance, skills assessment and career guidance, and to develop an electronic system for individuals to access information on learning opportunities and to register in the programmes. The system will be based on the principle of an individual learning account, which will encompass both the IT service to access training, and the financing of adult learning (specific features will be defined in the legislative proposal). The RRF will fund quality assured trainings for 21 600 people within the new framework (at least 40% of these in digital skills).

Luxembourg plans to further develop continuing and vocational training through the Skillsdësch reform, which will bring together public and private actors in the field of employment and vocational training. The reform is part of a wider set of measures – supported by the RRF, the national budget and other funding sources – to strengthen the adult learning system in Luxembourg with a view to the creation of a possible personal training account system. In addition, the RRP will support the Digital Skills investment, which will provide individual vouchers for digital skills up- and reskilling for employees who were put on short-time work schemes during the COVID-19 crisis. The voucher will be provided to 11 700 people through a new digital government service, also supported by the RRF (“*MyGuichet*”).

Finally, under the baseline scenario, the **European Semester and the EMCO**, will continue to provide recommendations for Member States to act in this field. However, they are **not specific enough to guide the action of Member States towards an integrated policy set up** to addresses the problem drivers with sufficient impact and in an inclusive way.

Concluding, the baseline scenario foresees extensive coverage of EU action to support the provision of education and training and of EU financial support in this area. Under the Baseline scenario, there is however no EU instrument yet that promotes financial support to individual adults in line with their learning needs in the same way the policy options presented in this report do, giving a broader choice for the type of skills and target groups supported.

2. Baseline scenario by Member State

The baseline assumes that current national policy responses continue, as do national variations in policy choices. The baseline also takes into account recent reforms proposed and how these will evolve having an impact on the general and specific objectives of empowering adults to participate in training and closing gaps in financial support and increasing incentives and motivation of individuals to train. This section provides the following information:

- Baselines of policies and reforms in EU Member States
- Baseline of financial instruments used in EU Member States
- Baseline of individual entitlement and supporting infrastructure and services

2.1 Existing policy frameworks and recent reforms

Several Member States have taken steps to address the general and specific objectives of the initiative, but **overall progress is uneven across Member States and target groups** (see table below). Most Member States identified increasing participation of adults in learning as a clear priority in legal acts, policies, or strategies at national level.³¹⁵ This is mainly the case for Member States reporting higher participation figures and in several of these countries new policy plans are erected, addressing the importance of adult learning and re- and upskilling throughout life. In only 3 Member States increasing participation is not or somewhat identified as priority, mostly in the Member States reporting lower participation figures. In 13 Member States, these relevant legal acts or strategies aim to increase the demand for adult learning offers by individuals *directly*. This mostly concerns the group of Member States already reporting higher participation figures.

Table A8.2 – Overview of national policy (reforms) on incentivising individual participation in adult learning: document and strategies on increasing participation & reference to demand side instruments for individuals

Cluster	Country	Documents and strategies on increasing participation	Aim to increase demand for learning by individuals directly
MS with high participation (>45%) in AL	AT	Yes	Yes
	DE	To some extent	Yes
	DK	To some extent	Yes
	FI	Yes	No
	FR	Yes	Yes
	HU	To some extent	No
	IE	Yes	No
	NL	Yes	Yes
MS with medium	SE	Yes	Yes
	BE	Yes	Yes
	CY	Yes	No

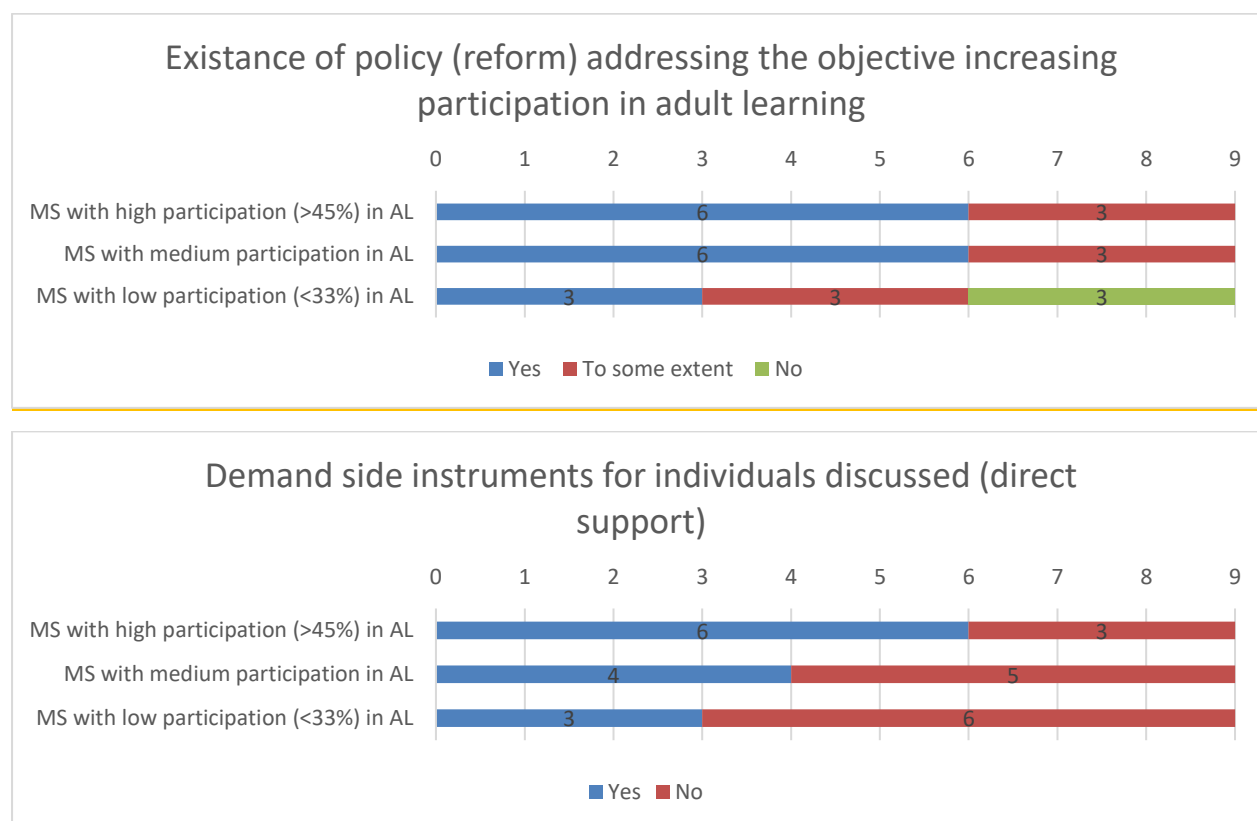
³¹⁵ Based on mapping done in 2020 on financial instrument by the Adult Learning Expert Network of the European Commission.

participation in AL	EE	Yes	Yes
	IT	To some extent	Yes
	LU	Yes	No
	LV	To some extent	No
	PT	Yes	No
	SI	Yes	Yes
	SK	To some extent	No
MS with low participation (<33%) in AL	BG	Yes	Yes
	CZ	No	No
	EL	No	No
	ES	To some extent	No
	HR	No	No
	LT	To some extent	No
	MT	To some extent	Yes
	PL	Yes	No
	RO	Yes	Yes
TOTAL		Yes = 15 To some extent = 9 No = 3	Yes = 13 To some extent = 0 No = 14

Source: authors, based on mapping of available instruments conducted AL expert network for the purpose of the IA on ILAs.

Table A8.2 is summarised in the Figure A8.1 below, showing a clear pattern. Those countries reporting lower participation figures are mostly also the countries that do not aim to increase the demand for adult learning offers by individuals directly in their legal acts and strategies, while countries reporting higher figures, mostly address such demand side instruments in their policies. Moreover, the group of countries reporting the lowest participation rates also represent the countries that do not give clear priority to participation of adults in learning in legal acts, policies, legislation, or strategies at the national level.

Figure A8.1 - Overview of national policy (reforms) on incentivising individual participation in adult learning per cluster of countries.



Source: authors, based on mapping of available instruments conducted AL expert network for the purpose of the IA on ILAs.

Table A8.3 provides an overview over recent or planned national policies and reforms on incentivising individual participation in adult learning in each of the EU Member States.

Table A8.3 - Existing policies/instruments/policy reforms in Member State³¹⁶

Member State	Policies and reforms
Austria	<ul style="list-style-type: none"> Lifelong Learning Strategy LLL 2020 (Strategie zum lebensbegleitenden Lernen in Österreich LLL: 2020): aims to increase the participation rate in lifelong learning. It foresees several measures to help increasing participation rates, some of which also relate to individual support for learners. One of the measures proposed is the development of an individual education account as an incentive for private investment in education.

³¹⁶ Based on mapping done by AL expert network on financial incentives for adult learning to individuals in 2020 and a report on national developments in adult learning with specific reference to the Recovery and Resilience Facility, produced early 2021, including suggestions for reform & investment priorities with respect to flagship 7 “Reskill & Upskill”.

	<ul style="list-style-type: none"> • The government programme 2020-2024 more concretely also follows up on the ambition to further develop the financing of adult learning through the introduction of learning accounts and training vouchers. • Social partners are advocating for strengthening individual learning entitlements. In a "Post Corona Working Group", the Federation of Austrian Industry (Industriellenvereinigung) recommended the establishment of publicly financed temporary vouchers or token systems for disadvantaged population groups, which can be used for example for training. The Chamber of Labour (Arbeiterkammer (AK)), being the legal representation of the employees' interests, is also advocating training vouchers and accounts. These are not intended to replace the existing structural subsidies for adult education, but to supplement them. The AK supports that every employee should have the right to update his or her qualification or to acquire a new qualification after a certain period of employment. For this purpose, the AK proposes a new model, namely the "qualification budget" (Qualifizierungsgeld). This bundles already existing instruments (educational leave, part-time training and scholarships for skilled workers) and advocates a training time account supported by a qualification budget. The Chamber of Commerce (Wirtschaftskammer (WKO)), as the legal representative of the interests of the business community, advocates that all formal training up to the Matura level (equivalent to the higher education entrance permission) should be free of charge, including for adults who are preparing for it as part of second-chance courses. For non-formal continuing vocational education and training, direct funding is favoured. Costs should be shared between learners, employers and the public sector. Political parties differ in their approaches.
Belgium	<ul style="list-style-type: none"> • Adult learning participation has been identified as a priority in the new policy plans introduced by the Flanders and Wallonia governments. The importance of re- and upskilling throughout life is recognised by the Flemish Vision 2050 plan and the Walloon Marshall Plan 4.0, especially in the areas of STEM and digital. In both regions, formal adult education is regulated in separate decrees. PES are regulated to guide adults towards employment, by focusing on training in skills in line with labour market needs. This includes the stimulation of the uptake of adult education opportunities. Separate plans, like the Flemish Literacy Plan, aim to help adults increase their levels of proficiency in reading and writing. • Legal acts and strategies in both parts of Belgium show a stronger focus on lifelong learning. However, policy documents make no specific reference to the possible role of individual entitlements yet.
Bulgaria	<ul style="list-style-type: none"> • The most recent national strategic document, which refers to lifelong learning and adult education, is the National Development Programme Bulgaria 2030, adopted in January 2020. The Programme outlines the importance of lifelong learning as a key principle in the sphere of education

	<p>and defines it as a national target goal for 2030 to reach 7% participation rate in lifelong learning of people aged 25-64 (with a four week reference period). The programme envisages that “[a] system of incentives and effective mechanisms will be put in place to improve the skills of the population (including the elderly) to enable the reintegration of the unemployed into the labour market, including structurally unemployed, long-term unemployed and economically inactive low-skilled workers”. The programme does not give priority to direct or indirect incentives and schemes.</p> <ul style="list-style-type: none"> • In recent years, the major policy documents related to adult learning were annual national employment action plans and the action plan for the Implementation of the National Strategy for Lifelong Learning 2014-2020. These plans outline several concrete measures targeting unemployed people with low levels of education (ISCED 2), long-term unemployed, unemployed without professional qualifications and inactive persons to acquire professional qualifications and key competences. Recently several important policy documents have been adopted in the sphere of digitalization and development of digital skills. Another important policy document is the national programme “Digital Bulgaria 2025” and associated Roadmap with more concrete policy measures. In the area of adult learning, it envisages improving the digital skills of the workforce, including financing of vocational training and key ICT competences, increasing the number of young employed and unemployed people trained by the ICT professions, teachers’ training in digital skills, raising the skills of ICT professionals in the perspective of lifelong learning.
Cyprus	<ul style="list-style-type: none"> • Increasing participation in adult learning has been identified as a priority by the national strategy on Lifelong Learning 2014-2020. • Besides this strategy, the remaining acts/reforms offer mainly indirect motivation to adults to participate in learning activities/programmes. For example, the Human Resources Development Authority (HRDA) offers basically free of charge training opportunities to the inactive population and to employees through subsidised training programmes. The only exceptions are some schemes targeting the inactive population —the unemployed or the unemployed Guaranteed Minimum Income (GMI) recipients— for which the HRDA grants the participants with a small weekly or monthly allowance (€90 - €125) for their expenses. Moreover, the Evening High Schools and the Evening Technical and VET schools also offer their programmes free of charge to all adults (18+). Additionally, in the framework of the implementation of the Digital Strategy for Cyprus, since 2017, the Cyprus Productivity Centre (CPC) of the Ministry of Labour and Social Insurance has launched a series of free short-courses and workshops designed to enhance digital literacy and to promote the use of e-government.

Czech Republic	<ul style="list-style-type: none"> • In the national policy framework no major reforms or policy initiatives on adult learning, can be identified. • In August 2020 the Strategic Framework for Employment until 2030 was approved by the Cabinet. Only a draft version from 2019 was publicly available in January 2021 (foreseen to be published in December 2021), with no concrete measures for adult learning proposed. The Strategy of Education Policy until 2030+ was approved by the Cabinet in October 2020, but it addresses only initial formal education.
Germany	<ul style="list-style-type: none"> • In mid-2019, the new National Strategy for Continuing Education was presented. It aims to improve funding opportunities, information, and a counselling system. It aims to support individuals in their education and development, but also small and medium-sized enterprises. Action goals include improving the transparency of continuing education offers, adapting and optimising public funding systems, expanding advisory services and increasing the quality of education. • The strategy also specifies its ambition to strive for a new skills culture which sees continuing education and training (CET) as a normal part of life. The strategy supports (1) the transparency of CET opportunities and programmes by developing a central gateway for individuals with information about the support available for CVET ; (2) closing the gaps in support systems; (3) ensuring joined-up lifelong CET counselling nationwide and strengthening skills development counselling; (4) strengthening the responsibility of the social partners; (5) review and enhance the quality and quality assessment of CET; (6) increasing the visibility and recognising the skills acquired by worked through VET; (7) developing further training qualification and continuing education and training programmes; (8) strategically developing educational institutions into centres of excellence for CVET; (9) supporting CET staff and equipping them with the skills required for the digital transformation; and (10) strengthening strategic forecasting and optimising statistics on continuing education and training. • Various schemes and policies are already in place, such as an education voucher scheme within the framework of the Federal Employment Agency's "Förderung beruflicher Weiterbildung" (FbW) programme, and a so-called "Bildungsprämie" (training premia), which is called the "savings voucher". This savings voucher is implemented under the legal framework of a so-called "Capital Formation Act" (Vermögensbildungsgesetz), and allows individuals to accrue savings into a savings account, which are complemented by a small public benefit.
Denmark	<ul style="list-style-type: none"> • Recently, the government has launched two plans for upskilling the workforce, both based on tripartite agreements. One is a programme for boosting the competencies of unemployed adults during the period of crisis.

	<p>The focus is on educating unskilled workers to skilled level, and the main instruments used are economic benefits for individuals. Unemployed adults participating in education usually get a wage compensation amounting to 80% of the unemployment benefit. The upskilling programme increases this to 100% of the benefit for all types of vocational education and 110% for types where labour is especially in demand. The focus of the other programme is on secondary vocational education. The main element here is also economic, an increased compensation to employers for the wages that they pay trainees. The source is not directly state funds but based on training levies paid by employers. The vocational students benefitting from this programme are mainly young people, with some adults. The strategies and legal acts include both direct and indirect measures. The direct measures include especially (1) economic support for individual students and (2) information and guidance regarding education opportunities for adults, including recognition of prior learning.</p> <ul style="list-style-type: none"> • The idea of introducing an individual learning account was one of the recommendations from an expert group on adult and continuing education in 2017, established by the Danish government after consultation with the social partners. The reception of the proposal was generally not positive, neither among political parties nor among labour market actors. Quite recently, in the context of the Covid-19 investments in education, the Social Liberals have relaunched their proposal for individual learning accounts. The reactions from other political parties and labour market actors have been the same as earlier.
Estonia	<ul style="list-style-type: none"> • The Estonian education strategy for 2014-2020 already set adult participation in learning as one of the key indicators to monitor the lifelong learning system. It particularly highlights the need to support learning among people with low qualifications. The strategy also introduced an annually revised Adult Education Programme which sets out specific measures to promote learning among adults. Promoting participation of adults in learning is also prioritised in Estonia 2020 – the document outlining strategic aims in the European Semester framework. In addition, as described in the work plan for 2021, the Ministry of Education and Research has planned to develop the principles of the skills portal and digital story (täiskasvanute oskuste digilugu) for adults and the concept of micro-credentials by the end of 2021. Furthermore, the ongoing formulation of future policy strategy (see for instance Smart and Active Estonia 2035) already considers updating the Adult Education Act. The Ministry intends to specify the principles of quality assurance of continuing education and make it compulsory for training institutions to enter data on training participants into the Estonian education information system. This is a prerequisite for the development of the web-based skills inventory database for adults.

	<ul style="list-style-type: none"> • While the overall strategic or legal documents do not prioritise the provision of financial incentives directly to individuals, such measures are introduced in Estonia. Hence, the aim is not to increase the demand for adult learning offers directly by individuals but to increase the demand through a combination of measures. Providing financial incentives directly to individuals is one of a combination of measures that are introduced to raise participation of adults in learning. Several research results have pointed out the need to introduce a training voucher or individual learning accounts scheme in Estonia to motivate learning among those individuals who are in need of training but tend to participate less or are among particular risk group.
Greece	<ul style="list-style-type: none"> • Following consultations with relevant stakeholders, the Ministry of Education and Religious Affairs passed a bill in December 2020 (254/2020) to completely restructure the overall system of Vocational Education and Training and Lifelong Learning (LLL): The main changes revolve around three pillars. <ul style="list-style-type: none"> ○ (i) Unified strategic planning of VET and LLL. It introduces a new framework with distinct levels of qualifications to avoid overlapping structures and services. In this context, a national VET system is established, which is developed at levels 3, 4 and 5 of the National Qualifications Framework, in line with those of the European Qualifications Framework. As part of the overall reform, the law introduces new post-secondary training leading to EQF 3, which was previously not provided. Additionally, the new law allows progress from the institutes of Vocational Training and Vocational Lyceum to Universities (for up to 5% of University entrants); ○ (ii) Direct and effective connection of VET and LLL with the labour market. Introduction of a new system of institutional governance at central/sectoral and regional level with substantial involvement of social partners in identifying the needs of the labour market as well as in specific aspects of the design, implementation and governance of the vocational education and training system; ○ (iii) Upgrade of the provided education and training (initial and continuing) in terms of structures, procedures, curricula and certification. The law re-introduces some quality dimensions in the operation of LLL centres - for example, by introducing minimum requirements for scientific and administrative staff, minimum quality specifications in the implementation of theoretical, practical and distance learning, introducing certification for the educational content of co-financed programmes etc. Additionally, the law creates a framework of regular control/inspections by the General Secretariat for Vocational Education, Training, Lifelong Learning and Youth.

Spain	<ul style="list-style-type: none"> • An integral reform of the professional training policies has been announced in December 2020. It will follow a consultation process with social partners and other relevant stakeholders. The focus of the reform is proposed to be in “permanent” training, upskilling and reskilling. • It will build on the modernization Plan for Professional Training launched in July 2020, with a foreseen investment of €1 900 million in four years. Besides reinforcing VET, it aims to boost the validation of skills for up to 40% of active population less than 55 years old, which means over 3 million people, until 2023. It will also increase the number of actions for adult learning in scarcely populated areas. The Plan also foresees more flexible ways for training enhancing cooperation between firms and the education systems. • It will also benefit from the newly created coordination bodies on professional training with the regions, established in November 2020 and with social partners in December 2020. • Professional training as part of life-long training has been highlighted as a priority for the National Resilience and Recovery Plan, including the aim of providing digital skills to 80% of the population, with particular emphasis on women and vulnerable groups. • Simultaneously, there are plans for enhancing the tailoring of training for jobseekers as part of the reform of active labour market policies. While these initiatives do not prioritise the provision of financial incentives directly to individuals, they aim to increase the demand through a combination of measures.
Finland	<ul style="list-style-type: none"> • Recent debates on lifelong learning are reflected in three documents on adult learning, namely the Programme of Sanna Marin’s Government 2019, the recent Education policy report 2030, and the upcoming parliamentary reform proposal of continuous learning. Education policy report 2030 is expected to propose a major overhaul of the lifelong learning policy and direction in Finland. The upcoming parliamentary reform proposal of continuous learning builds in part on an outline published by The Finnish Innovation Fund (SITRA) on continuous learning, suggesting a frame for future development of the educational system of Finland. • The focus in Finland is currently on increasing access to paid training leave, guidance (targeting specified vulnerable groups) and participation in learning. The adult education allowance was reformed in August 2020. The reform seeks to encourage students to work part-time and to make the adult education allowance scheme appeal to new kinds of applicants. It includes a new two-stage application process by using an online portal. Moreover, the amount of allowance will make it possible for certain applicants to receive an educational allowance. The scheme will continue to focus on those having an employment history of at least eight years, those

	<p>who have been employed by their current employer in a full time capacity for at least one year, those that study towards a qualification that complies with the scheme, those who have been granted study leave, and those eligible for social security in Finland. Specific provisions also allow for self-employed to request a similar (though slightly lower) education allowance. The idea of an individual learning account was discussed in in 2018 as an initiative from 9 labour unions, advocating for a model funded through employer and employee taxes (a sort of insurance model, like the unemployment insurance currently collected this way) and employee tax deductions. They call their model Competence accounts.</p>
France	<ul style="list-style-type: none"> • In France, increasing adult learning participation through conferring funds directly to the individual is identified as a priority. This challenge is addressed by the “Law for the Freedom to Choose an Occupational Future” (Loi sur la liberté de choisir son avenir professionnel) of 2018. France therefore aims at providing learning opportunities to all so that all are given an opportunity to (re)enter the labour market, or to benefit from upward occupational mobility. The individual is made responsible of her/his learning pathway, as opposed to the employer, the State and/or the PES. The Individual Learning Account (Compte personnel de formation, CPF) is the tool for this emancipation. In Annex 13 more information is included about this specific measure. • Education and training are at the heart of the recovery plan (France Relance), launched by the government to address the major economic downturn caused by the Covid crisis (mid 2020). The plan has set aside €15 billion for the purpose of employment and competences development. Some of the measures announced are: education and training for young adults, the National Fund for Employment earmarked for training, and facilitating reskilling and occupational transition.
Croatia	<ul style="list-style-type: none"> • Croatia still has a Law of Adult Education from 2007. In May 2020, the draft of the Adult Education Act was withdrawn from the parliamentary procedure. No new policy papers in adult education have been published since 2014. A small change to Ordinance on Public Documents in Adult Education (Official Gazette 61/14) was adopted, but it was not crucial for the general adult education policy. • The national policy debate does not aim at incentivising adult learning participation – neither by targeting the individual to increase their motivation, nor targeting the employer to increase investment in training. The adult education system in Croatia is not part of the regular education system, without a regular system of financing.
Hungary	<ul style="list-style-type: none"> • The need for increasing the participation of adults in learning and the need for competence development are reflected in recent strategies. The

	<p>increase in adult learning participation was mainly supported by EU resources, while state funding remained limited. The main overarching problem remains the lack of a comprehensive adult learning policy framework or strategy at national level. Despite this, over the past few years the Government has launched several projects in adult learning. However, in most cases the effectiveness of these projects has not been measured. This was recognised by the Government, that launched the 2020 Vocational Education Law that serves as a basis for the mid-term strategic policy plan called Vocational Training 4.0 Strategy. The reform includes system-wide changes, which includes the concept of VET, its structure, finances, and curriculum content. The Adult Education Act was comprehensively amended in several stages, most recently in July 2020 and then January 2021. The new Adult Education Act and related implementing regulations are a significant step towards rethinking the adult education system: a more transparent, simpler system, more clear terms of reference and with fewer types and exceptions. Furthermore, in June 2021, a new form of Student Loan named a “training loan” will be introduced as a type of adult-education version of the Student Loan for higher education students. The training loan will be available for those who are between 18 and 55 years of age and participate in adult education and vocational training. According to preliminary estimates, the training loan could reach more than 150 000 people: more than 50 000 in school-based VET and up to 100 000 in adult training.</p> <ul style="list-style-type: none"> • The ‘life-wide’ aspect of the lifelong learning concept has not been in the focus of the government yet, and important aspects of adult learning (e.g. general adult learning beyond labour market oriented learning, promoting active citizenship, health literacy, family learning, as well as increasing the social recognition of adult learning’s values) have not been covered in an articulated, distinguished policy approach. Nevertheless, the government provides all citizens with the opportunity to acquire a state-recognised vocational qualification on the first and second level. The latter can be obtained free of charge in school-based vocational education as well as in a so-called vocational training. Incentives for learning directly to individuals are not part of the current political debate.
Ireland	<ul style="list-style-type: none"> • Participation in adult learning is a policy priority in Ireland and increasing engagement in lifelong learning is a key objective of Ireland’s National Skills Strategy 2025. The strategy sets the ambitious goal to increase the adult learning participation rate to 15% by 2025 (with a four week reference period). In the national debate, there is little evidence on providing learning incentives directly to individuals. Individuals are nevertheless the focus for intervention in relation to activation.
Italy	<ul style="list-style-type: none"> • The general strategy which drives public policy in Italy aims at strengthening policy areas where delays persist in the formation of human capital, in

	<p>productivity and infrastructures, supporting them with appropriate macroeconomic stimuli. This is accompanied by a sort of dual strategy for adult learning. On the one hand, for vulnerable groups achieving adult learning objectives is postponed until the resumption of economic growth, and the negative effects that ensue are mitigated with the strengthening of social policies. On the other hand, developing and increasing the skills of high skilled workers - the individuals and companies that autonomously provide investment in training - are supported by the state both through opportunities for tax deduction on expenses, and through public interventions to support research and innovation.</p> <ul style="list-style-type: none"> • In 2020 the Italian government introduced an important measure aimed at promoting firm-level training and workers' reskilling. Coming into force in 2021, the Fondo Nuove Competenze (New skills fund) provides companies with monetary and organizational help to implement training and re-skilling programmes explicitly oriented at favouring investments in new technologies and reducing the employment impact of restructuring processes. The fund aims to homogenise regional training policies, reducing the asymmetries and extending the good practices developed in some regions. One of the key weaknesses of the Italian adult learning system concerns the differences between regions, with heterogenous distribution of resources and institutional capabilities. • Funding the individual learning demand has been debated in Italy in the early 2000s. It came on when Tuscany regional government introduced the first Individual Learning Account. Tuscany promoted the adoption of the measure among other regional territories.
Lithuania	<ul style="list-style-type: none"> • The Ministry of Education, Science and Sports delegated distribution of funds for non-formal adult education programs to the local municipalities since 2017, but these do not possess the funding necessary to make a substantial impact on the increase of participation in adult education. The lack of central coordination of funding and actions deployed by different ministries and programmes further decrease the impact on the rates of participation in adult education.
Luxembourg	<ul style="list-style-type: none"> • Increasing the participation rates in adult learning is given attention in legal acts, policies, legislation and strategies at the national level. The current legislation assures that a wide and accessible provision (including financially) is offered to individual learners. In addition, the new government coalition announced to further develop the lifelong learning and to improve the quality and flexibility in learning pathways. The relevant legal acts and strategies focus on supporting the provision of adult learning by subsidising it extensively at the level of the PES, public training providers and working closely with the professional chambers. All the measures aim to

	encourage individual adult learning through a wide and accessible offer of opportunities for formal, non-formal and informal learning.
Latvia	<ul style="list-style-type: none"> • In the Guidelines for the Development of Education for 2014-2020, lifelong learning is mentioned, but rather as indirectly linked to adult learning. No other relevant adult education legal acts or strategies exist that aim to increase the demand for adult learning offers to individuals directly.
Malta	<ul style="list-style-type: none"> • There is limited political debate on providing direct incentives to individuals to engage in adult education in Malta. Debate on direct incentives also did not attract much attention.
The Netherlands	<ul style="list-style-type: none"> • In 2018, the inter-ministerial programme for lifelong development was introduced. The approach aims to increase the demand for adult learning by individuals directly by, on the one hand, offering individual financial incentives and on the other hand, amongst others, increasing the flexibility of the VET and higher education offer. This is expected to lead to higher demand from learners for education programmes. The approach seeks to increase awareness of individuals, and help individuals decide for themselves which training they want to pursue. This development must be seen in the context of the existing system, in which employers and sectoral funds are responsible for the largest share of adult learning. • A key instrument in this strategy is the introduction of a new training allowance scheme, the STAP budget (Dutch acronym for Stimulerend Arbeidsmarktpositie, or Incentive Labour Market Position). The STAP budget is introduced to replace an existing tax incentive scheme, in which individuals can request tax credits for costs for participating in adult learning. The objective of the scheme is to better empower individuals to take control of their learning careers more actively. To do so, it offers all adults the possibility of spending up to €1 000 once a year on training. The funds can be used on trainings that are included in a training register.
Poland	<ul style="list-style-type: none"> • Poland has implemented numerous strategies aiming to increase adult learning participation. Funding is directed to the supply side and traditionally the training offer was decided by public administration and training institutions, rather than employers. Two national strategies have a perspective to 2030; the Human Capital Development Strategy (Strategia Rozwoju Kapitału Ludzkiego) – aiming to raise the competences and qualifications of citizens – and the Strategy for Responsible Development 2030, that links skills development to changes in the education system.
Portugal	<ul style="list-style-type: none"> • In Portugal, participation in adult learning is considered a policy priority. Since 2016, the Adult learning and education policy has observed changes. The existing offers are aimed at increasing demand indirectly.

	<ul style="list-style-type: none"> • The demand-side-funding instruments of adult learning targeting individuals did not have a relevant discussion in recent times in public arenas.
Romania	<ul style="list-style-type: none"> • In Romania, the low participation rate was identified as a problem and the Lifelong Learning Strategy 2015-2020 set the goal to increase it to 10% by 2020. This strategy is part of a package of three strategies adopted in 2015 on lifelong learning, on access to higher education, and on reducing early school leaving. The incentives to increasing participation are directed towards institutions and services, despite the non-functionality of the system has been recognised as a barrier to training.
Slovenia	<ul style="list-style-type: none"> • Increasing the adult learning participation is considered a policy priority and the main document is the Adult Education Master Plan (AEMP), adopted by the National Assembly. In the latest AEMP, 2021-2023, individuals are directly addressed through the formal recognition of their skills and knowledge. Besides the AEMP, the Slovenian Development Strategy 2030 sets a goal in adult learning participation of 19% by 2030 (11.6% in 2016, according to LFS).
Slovakia	<ul style="list-style-type: none"> • In Slovakia, there has been an ongoing effort to prepare a new law and strategy on lifelong learning to increase adult participation in learning. To incentivise training, in 2018 the Ministry of Finance introduced a tax incentive for employers to motivate them to invest more into training. • In the meantime, the Implementation Plan of the National Programme for Development of Education, adopted in 2018, specifically refers to the piloting and possible introduction of individual learning accounts. It budgets with €1 955 000 per year for the period 2020-2027.
Sweden	<ul style="list-style-type: none"> • According to the government, the goal of the municipal adult education (komvux) is for adults to be supported and stimulated in their learning. They should be given the opportunity to develop their knowledge and skills in order to strengthen their position in work and social life and to promote their personal development. The starting point for education should be the individual's needs and conditions. Those who have received the least education should be given priority in komvux. • There is a general understanding in Swedish politics that it is good both for the individual and the society that komvux is free of charge and open to anyone who needs it. The issue of study support (in Swedish studiemedel or CSN) in the form of a mix of soft loans and subsidies to the learners (or individual training subsidies) is also not questioned by any party.

2.2 Existing financial support instruments for adult learning

The following tables are based on information from the forthcoming update of the Cedefop “[Financing adult learning database](#)”. This update includes existing provisions as of 1st of February 2020. These data have been complemented with information from the adult learning expert network, as indicated below.

Box A8.1: Definitions used

Grant for individuals- training vouchers or ILAs: Adults may receive public funding to cover (part of) the costs related to their participation in education and training. Such co-funding schemes are implemented under various names: grant, training voucher, training account, individual learning account (ILA). Consistent with the terminology used in this IA, we refer to them as “training voucher” unless they involve personal accounts (notably, in France). They are part of a shift away from simply financing training providers to a more demand-led approach that finances learners.

Tax incentives for individuals: Tax incentives for the purposes of personal income tax may allow adults to deduct their costs for continuing vocational training or adult learning related to their current or future occupation from their individual income tax base or tax due.

Subsidised loans: A loan scheme allows individuals to borrow financial resources (on favourable conditions) from their future income to cover part of their (education and training) expenditure. The State may support the availability of loans and co-finance loan-related costs to encourage participation in adult learning

Paid training leave: The training/educational leave is a regulatory instrument which, either by statutory right and/or through collective agreements, sets out the conditions under which employees may be granted temporary leave from work for learning purposes. Furthermore, the training leave allows the employee to be absent from the workplace for education and training purposes without losing the right to return to work later on or other social rights connected to a current employment. Training leave may be paid (the employer fully or partly covers the employee’s salary, supported by the government or not) or unpaid (the employee isn’t paid during the training leave period, but they are guaranteed to maintain their position once the period ends). The below mapping only considers paid training leave schemes.

Tax incentives and grants for companies: Concerning tax incentives for the purposes of corporate income tax, countries typically regard company expenditure on training as a business cost which is 100% deductible from the taxable income. In some countries, companies may also receive additional tax incentives related to their training activities. Companies may also receive public funding (grants) to cover (part of) their training costs.

Training fund: A ‘training fund’ is a dedicated stock or flow of financing outside normal government budgetary channels for the purpose of developing productive skills for work. Training funds in the EU are very heterogeneous. The differences concern the governance models (bipartite or tripartite nature), the number of funds established per country, the type of (education and training) activities and target groups supported, and the way the money is collected and redistributed.

Table A8.4: Overview on the use of funding instruments in the EU Member States

	Country	Financial support for individuals					Financial support for companies		
		Training voucher/grants	Individual learning account	Tax incentives	Subsidised loans	Paid training leave	Paid training leave with public co-funding	Tax incentives / grants	Training funds
MS with high participation (>45%) in AL	AT	V		V		V	V	V	V
	DE	V		V	V	V	V	V	V
	DK	V		V		V	V	V	V
	FI	V		V	V	V	V	V	
	FR	V	V		V	V	V	V	V
	HU	V			V			V	V
	IE	V		V				V	V
	NL	V		V	V			V	V
	SE	V		V	V	V	V		
MS with medium participation in AL	BE	V				V	V	V	V
	CY					V	V	V	V
	EE	V		V	V	V		V	
	IT	V		V	V	V		V	V
	LU	V		V		V	V	V	V
	LV			V	V	V		V	
	PT	V		V	V	V		V	
	SI			V	V	V		V	V
	SK	V			V	V		V	
	BG	V				V		V	

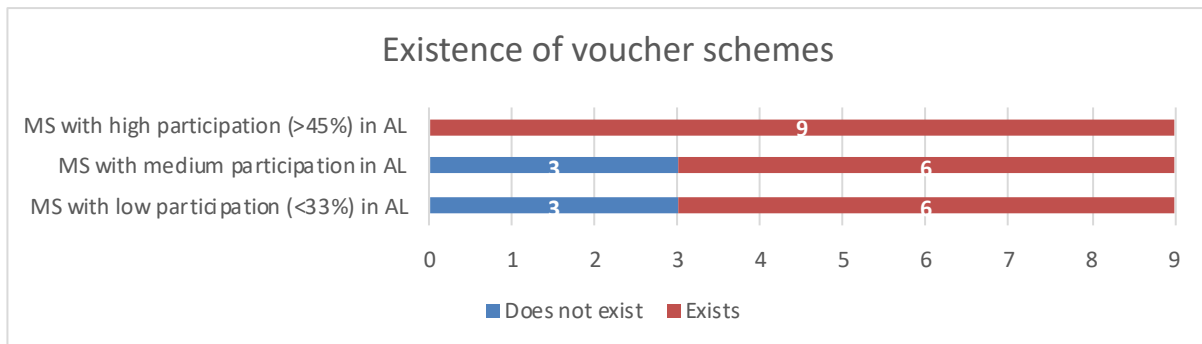
MS with low participation (<33%) in AL	CZ			V		V	V	V	
	EL ³¹⁷				V	V	V		V
	ES	V			V	V	V	V	V
	HR	V				V		V	
	LT	V		V	V	V		V	
	MT	V		V	V	V		V	
	PL	V			V	V		V	
	RO						V		V
	TOTAL	21	1	16	17	24	12	25	14

Source: Forthcoming update of Cedefop's "Financing Adult Learning Database", complemented with information provided by the national experts of DG Employment's Adult Learning Network concerning the information whether paid training leave is supported with public funding.

³¹⁷ Adult learning experts pointed to 20 voucher schemes running since 2015, co-funded by the ESF (see the case study in Annex 13). These are not included in the Cedefop database, since these vouchers represent a particular type of service (a type of course) provided by one or a small number of providers, so that these scheme are more similar to a supply-side funding arrangement.

Table A8.4 shows that the **most commonly available financial instruments are financial incentives for employers for employee training** (available in 25 Member States), followed by **paid training leave** (24 Member States- whereby public co-funding is available in half of them according to the adult learning expert network, and often with low effective outreach as discussed in Annex 7) and **training vouchers** (21 Member States). The Member States that report high participation in adult learning all have training voucher such schemes in place, as compared to two thirds of Member States that report low or medium participation.

Figure A8.2 – Existence of training voucher schemes by level of adult learning participation



Source: Forthcoming update of the Cedefop Financing Adult Learning Database and AL expert mapping and AES 2016.

However, only few training voucher schemes are available for all adults. An analysis of the 86 schemes included in the Cedefop database, only 8 are open to all adults. Schemes commonly target the unemployed or (sub-groups among) employees, and few were available to the self-employed or inactive. In the case vouchers address employees, in several cases this is restricted to employees that are working a minimum number of hours a month. Examples include a training voucher in BE that apply to persons with a working contract of less than 80 hours per month or a continuing education grant in DE that applies for people that are employed 15 hours or more per week.

Available participation data also point to a limited outreach to adults as measured by participation rates in the adult population, limiting their impact on increasing adult learning participation rates or reducing inequalities in the access to training opportunities. For instance, the REPAS training voucher scheme in the Slovak Republic reported 13 398 participants in 2018, and the training card for employed people in Estonia reported around 5 700 participants in 2020. Effective outreach of most voucher schemes is hence smaller also in comparison to income tax incentives. See Annex 13 for a case study of the NL case, where income tax incentives are currently replaced by a training voucher scheme with a comparable outreach (“STAP-budget”), leading to a number of expected beneficiaries (200 000 adults a year) that is significant in comparison to the adult population.

2.3 Existing infrastructure and supporting services

The table below provides an overview of infrastructure and supporting services for increasing incentives and motivation of adults to participate in adult learning. This includes infrastructure and services like:

- *Register of training providers, being a user friendly and up to date database of adult learning opportunities that is also including non-formal training opportunities at national level*
- *Digital platform for citizens where they can identify themselves securely and access public services (e-government platforms)*
- *Quality assurance for formal and non-formal adult learning provision that could be applied or built upon to safeguard the quality of the training demanded by individuals. This could for instance be a list of certified providers and trainings that qualify for some already existing support schemes.*
- *Career and adult learning guidance including public or legally mandated guidance offers*
- *Skills validation mechanisms are in place to validate skills obtained through non-formal and informal learning, modular training etc*

It shows that existing **practice to increase incentives and motivation of individuals** varies across Member States. According to the assessment of the AL expert network almost all countries have a publicly or legally mandated career guidance systems (25 Member States of which 5 Member States to some extent), quality assurance systems for non-formal learning (21 Member States of which 11 to some extent), and skills validation systems (26 Member States of which 16 to some extent) in place. Nevertheless, **these are generally not fully covering all type of learners and not always linked to financial instruments in a systematic and integrated approach.** A concrete example in this respect is the availability of guidance systems. In most countries, the PES plays a major role providing guidance services, limiting the services only to the unemployed and jobseekers. In other cases, guidance services are fragmented, not having a centralised institution for career guidance for all adults but provided by different subsectors (such as PES, guidance centres in the education system, and youth services). Only a few countries have a national guidance system providing support to all adults. Austria, for example, has a more elaborated guidance system which provides educational guidance free of charge in all provinces, and which can be used on a voluntary basis. Another example is the Netherlands that recently developed a voucher system for guidance and counseling services for all adults (Nederland Leert Door!).

Although some countries invested in the last years in digitalising services in portals, only 12 Member States have education registers in place or databases with training opportunities addressing the lack of transparency about available support and training offer. All Member States have digital platforms in place where they can identify themselves securely and access public services (e-government platforms). In almost all member States there is a legal right to educational leave.

Table A8.5 - Existing infrastructure and supporting services for increasing incentives and motivation of adults to participate in adult learning (based on mapping done by AL expert network on financial incentives for adult learning to individuals in 2020)

Cluster	Country	Register of training	Digital platform	Quality assurance in non-formal AL	Career guidance	Skills validation
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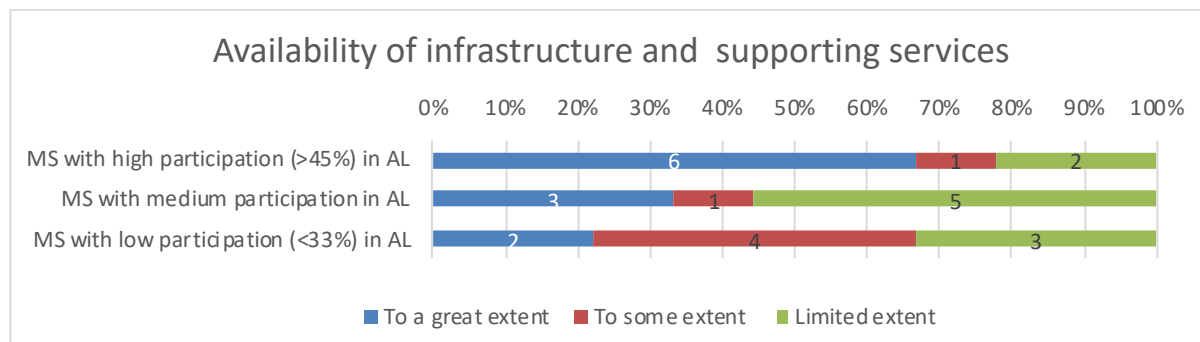
		provide rs				
MS with high participation (>45%) in AL	AT	Yes	Yes	Yes	Yes	To some extent
	DE	Yes	Yes	Yes	Yes	To some extent
	DK	Yes	Yes	Yes	Yes	yes
	FI	Yes	Yes	Yes	Yes	yes
	FR	Yes	Yes	No	Yes	yes
	HU	No	Yes	To some extent	To some extent	To some extent
	IE	No	Yes	To some extent	Yes	To some extent
	NL	No	Yes	Yes	Yes	yes
	SE	Yes	Yes	To some extent	Yes	yes
MS with medium participation in AL	BE	Yes	Yes	To some extent	Yes	yes
	CY	No	Yes	Yes	No	To some extent
	EE	No	Yes	Yes	Yes	To some extent
	IT	No	Yes	To some extent	To some extent	To some extent
	LU	Yes	Yes	To some extent	Yes	yes
	LV	No	Yes	To some extent	Yes	To some extent
	PT	No	Yes	No	Yes	yes
	SI	Yes	Yes	To some extent	Yes	To some extent
	SK	No	Yes	To some extent	To some extent	To some extent
MS with low participation (<33%) in AL	BG	Yes	Yes	Yes	Yes	To some extent
	CZ	No	Yes	To some extent	No	To some extent
	EL	No	Yes	No	To some extent	To some extent
	ES	Yes	Yes	Yes	Yes	yes
	HR	No	Yes	No	Yes	No
	LT	No	Yes	No	Yes	To some extent
	MT	No	Yes	No	To some extent	To some extent
	PL	Yes	Yes	Yes	Yes	To some extent
	RO	No	Yes	To some extent	Yes	yes
TOTAL		Yes = 12 No = 15	Yes = 27	Yes = 10 To some extent = 11 No = 6	Yes = 20 To some extent = 5 No = 2	Yes = 10 To some extent = 16 No = 1

Source: authors, based on mapping of available instruments conducted AL expert network for the purpose of the IA on ILAs

By relating the availability of infrastructure and supporting services in Member States to the participation statistics, a clear trend becomes visible. In Figure A8.3 below, scores are provided to individual items (availability of register of training providers; digital platform; quality assurance; career guidance; and skills validation) to assess the general availability of infrastructure and

supporting services in the EU Member States in a comparative manner (Yes = 2 points; To some extent = 1 point; No = 0 point). The figure shows that **Member States that report the highest participation figures, generally also have the infrastructure and supporting services in place** (see figure below).

*Figure A8.3 - Overview of adult learning expert mapping – existence of infrastructure and supported services*³¹⁸



Source: authors, based on mapping of available instruments conducted by AL expert network for the purpose of the IA on ILAs

Member States refer to different **good practice** regarding the register of training providers, digital platform, quality assurance, career guidance, and skills validation. With regards the educational **register**, Denmark serves as good practice having a register with all relevant information on Danish citizens and include records of schools and education institutions. Information on education is linked to the individual citizen codes, which allows linking to other types of individual information, such as income, employment, and health. There are dedicated registers for adult education and training, including information on shorter courses and part-time education. Furthermore, following the 2017 tripartite agreement on adult education and training, the platform ‘voksenuddannelse.dk’ was established in the fall of 2018. The platform integrates information from previous separate platforms and is designed to give a comprehensive overview of all training opportunities for adults.

A good practice example in relation to **quality assurance of non-formal adult learning** is Ö-Cert in Austria, which is an overall framework of quality ("umbrella label") for adult education providers. It's a nationwide quality trademark, regulated by law (contract between the Federal Ministry of Education, Science and Research and all 9 provinces) and became effective in 2012.

A good example of **career guidance** is available in Ireland where guidance counsellors and coordinators provide a guidance service to numerous target groups. The Adult Educational Guidance and Information Services are based in the 16 Education and Training Boards and Waterford Institute of Technology.

With regard to **skills validation**, Denmark serves as good practice, where assessment of prior learning and skills is a right for adults who want to enrol in some types of adult education and training. The assessment is done by an educational institution and regulated by the official guidelines for the chosen type of education. If the skills obtained through prior learning are recognized for the chosen type of education, the applicant gets a certificate. For persons who are unskilled or have an upper secondary vocational education as highest level, a prior learning assessment in relation to Labour market training

³¹⁸ A score is calculated whether there is register of training providers, digital platform, quality assurance in non formal adult learning, career guidance, skills validation and right on education leave.

courses, vocational educations, general subjects and academy programmes, the assessment is free. For persons with a higher education degree, the schools often charge a fee for prior learning assessment for academy and diploma programs.

3. Estimating adult learning participation in 2030 under the baseline scenario

Adult learning participation under the baseline scenario is influenced by numerous external drivers (Sections 2.2.2 and 2.4) and policy efforts at EU and Member State level (Section 5.1 and this Annex). Forecasting participation trends is complicated by the limited data availability (only three AES 12 survey waves for the 12 months reference period are available for 2007, 2011 and 2016) and by survey revisions in some Member States that have led to statistical breaks in their data series which distort the comparison of participation rates over time.

Concerning the projection of *participation levels*, this impact assessment therefore draws on analytical work by the JRC, which has forecasted the evolution of adult learning participation in the EU until 2030 based on past trends only in those EU Member States without any statistical break between the 2007, 2011 and 2016 AES survey waves.³¹⁹ This analysis shows an almost linear increase in adult learning participation across the three survey waves (consistent with LFS data for participation with a 4 week reference period). Projecting the relative increase to 2030 and applying it to the 2016 participation rate for EU-27 yields a predicted increase from 37.4% in 2016 to 48.6% in 2030. The EU-level targets for 2025 (50%, European Skills Agenda) and 2030 (60%, European Pillar of Social Rights Action Plan) are hence not met under the baseline scenario.

Concerning *participation gaps/inequalities*, no clear trends are apparent in the data: the JRC analysis shows similar rates of increases for the low qualified (though at lower participation levels, see Annex 5.3), and an analysis of participation gaps between permanent employees and other adults between 2007 and 2016 also does not establish a clear trend.³²⁰ Hence, the baseline scenario of this impact assessment assumes a constant rate of increase in adult learning participation rates across all groups of adults until 2030, applied to their respective participation level in 2016. This yields a stable benchmark against which expected impacts of the policy packages can be compared. It avoids the pitfalls of alternative sub-group specific extrapolations which would be based on small sample sizes and would suffer from associated high measurement error. Table A8.6 shows the resulting assumed changes in average participation rates of adults aged 25-64 between 2016 and 2030 under the baseline scenario for EU-27 and by Member State.

Table A8.6: Projected baseline participation rate in 2030, based on AES 2016

Country	Participation rate (2016)	Projected baseline participation rate (2030)
EU-27	37.4	48.6
Belgium	39.7	51.6

³¹⁹ Biagi et al. (2020), *Adult learning in Europe: An analysis of the determinants and an attempt at forecasting*, analytical input by JRC for DG EMPL. This applies to 13 Member States which account for about half of the EU-27 population and are broadly representative of the EU-27 in terms of their average adult learning participation rate in 2016. Participation rates in all but 3 Member States (BG, LT, ES) increased between 2007 and 2016.

³²⁰ Based on the assumption that statistical breaks in participation levels still allow for a comparison of relative participation levels of different groups of adults over time, a comparison is possible for 22 Member States who participated in the AES in 2007 and 2016. Participation gaps decreased in 13 out of these Member States and increased in 9, with only a small average change.

Bulgaria	11.8	15.3
Czechia	22.8	29.6
Denmark	50.5	65.7
Germany	46.4	60.3
Estonia	33.9	44.1
Ireland	46.0	59.8
Greece	16.0	20.8
Spain	30.5	39.7
France	48.4	62.9
Croatia	26.9	35.0
Italy	33.9	44.1
Cyprus	44.8	58.2
Latvia	39.0	50.7
Lithuania	25.0	32.5
Luxembourg	43.4	56.4
Hungary	54.8	71.2
Malta	32.8	42.6
Netherlands	57.8	75.1
Austria	55.3	71.9
Poland	20.9	27.2
Portugal	38.0	49.4
Romania	5.8	7.5
Slovenia	40.3	52.4
Slovakia	42.6	55.4
Finland	51.4	66.8
Sweden	58.9	76.6

Source: AES 2016 and author calculation.

ANNEX 9: EVIDENCE ON THE DISCARDED POLICY MEASURES

As outlined in Section 5.2, the objectives of this initiative are complementary to and not a substitute for the financial incentives for training for employers and training funds as well as supply side policy guidance and funding. This Annex provides further information on alternative ways of providing financial support for training to individuals –income tax incentives and subsidised loan or savings schemes-, and outlines why they are not considered in the context of this initiative. For further information on the links between the approaches discarded in the context of this initiative and the objectives of this initiative, see the external study supporting this initiative.³²¹

1. Tax incentives for individuals

General description

³²¹ Fondazione Giacomo Brodolini (2021), *Study to support the Commission explorations for a possible EU initiative on Individual Learning Accounts*.

Tax incentives are the concessions in tax codes that mean a conscious loss of government budgetary revenue because they reduce either the tax base (tax allowance) or the tax due (tax credit).³²² Concerning tax incentives for the purposes of personal income tax, they may allow adults to deduct the costs for continuing vocational training or adult learning related to their current or future occupation from their individual income tax base or tax due.

It is one of the most prominent tools used by Member States to incentivise individuals to participate in adult learning, both in terms of the number of Member States using it (16 as of 2021, cf. Annex 8.2) and even more in terms of the size of the target group and volumes spent on it (although more systematic data on the amounts of public funds spent on this instrument are lacking, see the estimate in the DE example below).

Examples³²³

Netherlands: The Dutch example of tax incentives provides useful evidence and a relatively rare example of a scheme that has been evaluated. The evaluation of the training expenditure deduction in the income tax in the Netherlands by the Bureau for Economic Policy Analysis³²⁴ shows that 2.6% of all tax payers between 25 and 60 years of age (equivalent to 5% of adults participating in adult learning, made use of this deduction, for an average of €1 700 per year. The deduction possibility seems to be used mostly for the purchase of books and for tuition fees. Three-quarters of the users of the deduction for education expenses are following learning programmes that are not supported with public funds, or in private training institutes. Most of those who follow a government-funded course are enrolled in a bachelor's or master's programme in higher education.

The users are often highly educated and/or employed. The evaluation estimates that the deadweight loss - i.e. the part of an extra euro training deduction that does not lead to extra training - amounts to between 73 and 100%, depending on the group and the tax rate. One of the reasons for a low uptake amongst lower-educated and unemployed adults can be partly explained by the fact that training still has to be paid out of the individual's pocket in advance of any tax incentive with the uncertainty as to whether it can be actually deducted from tax payments (especially in case of low or no income). Even if eligible, beneficiaries typically consider future tax deductions as less attractive or valuable, considering the time value of money.

As a result, the Netherlands is replacing the tax deduction to introduce a scheme based on individual training entitlements ("*STAP – Stimulating Position on the Labour Market-budget*", see the NL case study in Annex 13), to improve the outreach to learners.

Germany: There have been different rules for training and further training/education with tax incentives more generous for the latter (all expenses could be deducted as expenses) whereas restrictions were in place for tax incentives for training. Tax relief was pegged at a maximum of 42% (e.g. for €1 000, €420 could be reimbursed but €580 must be privately financed).

³²² Cedefop (2009), [Using tax incentives to promote education and training](#).

³²³ See Dohmen and Timmermann (2010), [Financing Adult Learning in Times of Crisis](#), for additional examples.

³²⁴ CPB (2016), [Evaluatie aftrekpost scholingsuitgaven](#). See Leuven and Oosterbeek (2004), [Evaluating the effect of tax deductions on training](#) (Journal of Labor Economics) for an earlier assessment of the NL income tax incentives, also finding limited effectiveness.

An estimate for Germany suggests that 1.9 million people have made use of these tax incentives in Germany in 2010, or some 8.5% of all adult learning participants, which would suggest that the reach of this instrument – in terms of adult participation - is approximately 50% larger than that of all other instruments together.³²⁵ No evaluations have been conducted on the effectiveness of the scheme to increase participation in adult learning.³²⁶

Austria: Individuals (as well as companies) can retrospectively deduct training expenses from their taxable income but on the condition of advancing the employee's occupational skills in their place of employment. Expenses are not limited to fees and can also cover travel, learning materials and even some accommodation costs. Individuals can deduct between 38.33% and 50% of expenses from their taxable income, depending on their rate of tax, with tax relief increasing in line with income.

Conclusions on the effectiveness of income tax incentives for adult learning

Income tax incentives for training have a large potential target group and the limited available evidence suggests that where they exist, this often makes them the largest incentive instruments for individuals in terms of public spending volumes (cf. DE example). However, they can only provide incentives for individuals with incomes above the income tax exemption limit (cf. AT example). Evaluations of their effectiveness at increase participation among adults who would otherwise not have participated in training are scarce, and the limited available evidence points to high rates of deadweight loss (exceeding estimates for the deadweight loss of individual training entitlements, cf. NL example). This is consistent with a limited effectiveness of income tax incentives for training for reaching the objectives of this initiatives concerning the closing of coverage gaps & the increase of individual's incentives and motivation to take up training.

2. Subsidised loans or savings schemes for adult learning

General description

According to Cedefop's financing adult learning database, many Member States subsidise loans for educational and training purposes. Most frequently, these schemes are aimed at first-time students in higher education, but some of them are also open for adults (25 and older) up to a certain age limit or without such a limit.³²⁷ Moreover, there are examples of loan schemes designed explicitly for adults for (specific) educational and training purposes (e.g. training loan for unemployed people, job seekers and employees aged 45+ in Poland).

Loan schemes allow individuals to borrow financial resources (on favourable conditions) from their future income to cover part of their (education and training) expenditure. The majority of Member States have such loans in place, see the mapping in Annex 8.2 for an overview. BG, DE, EE, FI, HU, IT, LT, LU, LV use these to support both formal and non-formal education and training programmes, while other Member States AT, BE, RO and SE use such loans to support formal education and training programmes only. Loans are provided to adult students in a number of Member States (BG, DE, EE, FI, HU, LT, LU, LV, MT, PT) to fund higher education programmes.

³²⁵ Cordes and Dohmen (2019), [Verbreitung öffentlicher Förderinstrumente in Deutschland und der Blick in die Länder](#).

³²⁶ Leuven and Oosterbeek (2004), [Evaluating the effect of tax deductions on training](#), Journal of Labor Economics.

³²⁷ Cedefop (2012), [Loans for vocation education and training in Europe](#).

By contrast, subsidised saving schemes for adult learning seek to promote individual saving for future education/training costs. The account holder is required to set aside money over time in a savings account. Such individual savings could be matched by contributions from the State budget and/or employers. There are very few saving schemes in Europe; indeed the only currently operating scheme we identified is used in AT, the education savings scheme.³²⁸

Example of a subsidised loan scheme for adult learning: “Lifelong Learning Credit” in NL

A recent study on the “Lifelong Learning Credit” scheme in the Netherlands³²⁹ shows that a total of 6 837 users were granted a total of 7 743 loans in the academic year 2017/2018. Over half (56%) of the users are women and less than half (44%) are men. Almost one third (31%) are younger than 30 years and over two thirds (69%) are 30 years or older.

In the majority of cases, these are average monthly loan amounts per user of €0-249 (75%) and €250-499 (17%). Loan amounts of €1 000 or more per month are rare. Almost two-thirds (65%) of loans support part-time courses and almost a third (32%) full-time courses. The share of users with an allocation for a dual programme is very small (2%). A survey amongst participants showed that 45% would not have participated in the training programme without the loan, pointing on a positive contribution. Respondents indicate that they choose to apply for a loan because it provides money that they would not have available (74%); not willing to borrow money from others; and not able to earn an income while studying. Those who have taken out a loan are more positive about taking out a loan to follow a training programme (63% is positive), compared to non-users (26%).

The study also explored the possibility to expand the Lifelong Learning Credit for other types of training for low qualified participants and vulnerable groups. The study concludes that for these groups, providing only loans is not sufficient to increase participation. These groups must be convinced of the benefits of their financial investment in training. Moreover, these groups are less inclined to look for training opportunities themselves. Reaching and then stimulating these potential users necessitate additional provisions, including easily accessible, independent guidance and training advice, tailored to the needs of potential users.

Conclusions on the effectiveness of subsidised loans and savings for adult learning

Loans are particularly useful for the financing of longer, more expensive and formal education programmes, whereas most adult learning is shorter and non-formal (cf. Annex 6.2). Moreover, they require significant forward planning and motivation from the side of potential adult learners, limiting their expected attractiveness in view of the problem analysis in Section 2 of this impact assessment. Similarly, savings schemes require significant forward planning low-income earners and other vulnerable groups who often face challenges to save on a regular basis. These barriers are reflected in generally low take-up rates of such schemes, as observed in the NL example and the AT case study in Annex 13. Subsidised loans or savings schemes for adult learning are hence not expected to make a significant contribution for reaching the objectives of this initiative. Nevertheless, in particular subsidised loan schemes can complement the policy measures under consideration in the context of this initiative by supporting the funding of longer periods of training.

³²⁸ Another identified saving scheme existed in the Netherlands, but has been closed because of its low take-up.

³²⁹ Panteia (2019), [*Onderzoek levenlanglerenkrediet: eindrapportage*](#).

ANNEX 10: EVIDENCE ON THE BENEFITS OF ADULT LEARNING

This Annex provides an overview of the benefits of adult learning. It is based on a literature review and serves as input to the quantification of estimated impacts in Annex 12, and the qualitative discussion of impacts where quantification is not possible. There are two key challenges for deriving robust estimates on the benefits of adult learning:

- **Self-selection of adults into training:** correlations between training participation and subsequent wage or employment outcomes will tend to over-estimate the benefits of training participation. This is because higher ability or more motivated individuals are more likely to take up training opportunities and also more likely to experience subsequent wage or employment gains, and correlations are not able to distinguish between the relative importance of both factors.
- **Delayed realisation of benefits:** it often takes some time even for a successful training to translate into wage and employment increases, and very short-term effects may even be negative as time in training is time not spent earning income or searching for a job. This means that studies that are not able to observe individuals for several years after training are not able to assess its benefits.³³⁰

To address the first limitation, preference has been given to evidence from randomised controlled trials or field experiments that feature and exogenous assignment of training and allow for a comparison between a treated and a control group, or quasi-experimental methods that aim to exploit some exogenous variation in training assignment to identify causal estimates. To address the second limitation, preference has been given to studies that allow to follow up on individuals for some time after training. However, depending on the methodology, the ability of studies to address these issues varies, leading to the considerable dispersion of point estimates in the studies summarised below. To derive reasonable “middle ground” estimates, preference has been given to literature reviews by experts in the field and meta-analyses, and the range of estimates observed in the literature has been used to inform the selection of sensitivity checks in Annex 12.

1. Returns to individuals

1.1 Wages

Table A10.1 provides an overview of wage return estimates for studies that tackle the issues of self-selection and delayed benefits to some extent. Adjustments have been made to scale impact estimates to a training duration of 30 hours, in order to allow for a comparison. Even after narrowing the range of studies considered, this Table shows a large range of estimated wage impacts of training across studies.

³³⁰ For instance, the study by Schwerdt et al. (2012) on a Swiss training voucher experiment introduced in Annex 11 and used to estimate take up rates and deadweight loss for the quantifications of impact in this report only observes individuals at most one year after they have received their training voucher, not allowing for a comprehensive assessment of training impacts.

Table A10.1: Estimated impact of training on wages

Authors	Volume of the training	Increase in wages	
		Net	30-hour training entitlement equivalent ³³¹
Dearden et al. (2006) ³³²	Around 80 hours	0.3% at the industry level per each 1 percentage point increase in employees' participation rates in training over the last 4 weeks	11.2% for each individual
Konings and Vanormelingen (2015) ³³³	37 hours/€1 400	16.1%	About 10% ³³⁴
Leuven and Oosterbeek (2008) ³³⁵	40hours	Based on the review of the literature so far, at least 3%	2.25%
	50hours	11% when controlling for observable characteristics, 0.9% (but not statistically significant) when controlling for self-selection on observable and unobservable characteristics	0.54%
Görlitz (2011) ³³⁶	38 hours	0.5% but not statistically significant	0.4% but not statistically significant
Brunello et al. (2012) ³³⁷	40 hours	1.36%	1%

³³¹ Conversions to 30-hour training entitlement equivalent are based on information on the hours of training per individual examined in the papers under review. Where these are not available, information on the cost of training or training duration is considered. An hour-to-€ ratio of around €15 per hour is used, in line with evidence on training from Annex 11. In case both the cost and duration of the training are included in the paper and their ratio differs significantly from the average ratio used in this study, an adjustment is made. In any event, the estimates produced should not be considered as precise point estimates but as indicative values that allow defining a range of plausible increases in wages from a 30-hour training entitlement in the medium term.

³³² Dearden et al. (2006): [The impact of training on productivity and wages: Evidence from British panel data](#), Oxford bulletin of economics and statistics.

³³³ Konings and Vanormelingen (2015): [The Impact Of Training On Productivity And Wages: Firm-Level Evidence](#), The Review of Economics and Statistics.

³³⁴ The exact proportion based on the hours of training would be 13%. This value is further reduced to account for the higher cost per hour of the training examined in the paper.

³³⁵ Leuven and Oosterbeek (2008): [An alternative approach to estimate the wage returns to private-sector training](#), Journal of Applied Econometrics.

³³⁶ Görlitz (2011), [Continuous training and wages: An empirical analysis using a comparison-group approach](#), Economics of Education Review.

³³⁷ Brunello et al. (2012), [Training subsidies and the wage returns to continuing vocational training: Evidence from Italian regions](#), Labour Economics.

Authors	Volume of the training	Increase in wages	
		Net	30-hour training entitlement equivalent ³³¹
Martins (2020) ³³⁸	Approx. 35 hours ³³⁹	Not statistically significant	0%
Rinne et al. (2013) ³⁴⁰	Hours of training not known, average duration of training 6 months (part-time)	€160(€110 more than pre-reform) per month, daily wage around €60, so around 8.8% increase	Not available
Doerr et al. (2017) ³⁴¹		0	0%
Doerr and Strittmatter (2017) ³⁴²		€90more than supply-led (pre-reform) around 5% increase	Not available
Conti (2005) ³⁴³	Total amount of training not known, but hourly effects provided	0.05% per hour	1.5%
Heinrich et al. (2013) ³⁴⁴	Hours of training not known. Average length is 6-9 months (part-time). However, avg. expenditure €2 400-2700 ³⁴⁵	30% for the first months, 15% after depreciation (for men) slightly higher for women	2.5% (long term)-4% (short term)
Levy-Yeyati et al. (2019) ³⁴⁶	No info on hours of training, but €1 300 as median cost	Median impact of 7.7%	Around 2.5%

Meta-analyses point to positive wage returns³⁴⁷, and the literature review by Algan et al. (2021) concludes that studies which are able to control for self-selection into training often put the returns to a week of training at around 1%.³⁴⁸

³³⁸ Martins (2020), [Employee Training and Firm Performance: Quasi-experimental evidence from the European Social Fund, GLO Discussion Paper Series](#).

³³⁹ Ibid. “Considering the average number of workers per firm, the approved training hours figure amounts to a mean number of training per worker similar to the 35-hour figure established in labour law”. In monetary terms, this equals to an average of €267 per worker (€30 000 per firm, 112 workers) in PT values, 2007.

³⁴⁰ Rinne et al. (2013) [Vouchers and caseworkers in training programs for the unemployed](#), Empirical Economics.

³⁴¹ Doerr et al. (2017). [Employment and Earnings Effects of Awarding Training Vouchers in Germany](#), ILR Review.

³⁴² Doerr. and Strittmatter (2017), [Assignment Mechanisms, Selection Criteria, and the Effectiveness of Training Programs](#), Economics Working Paper Series, University of St. Gallen.

³⁴³ Conti (2005) [Training, productivity and wages in Italy](#), Labour Economics.

³⁴⁴ Heinrich et al. (2013) [Do Public Employment and Training Programs Work?](#). IZA J Labor Economics.

³⁴⁵ In current prices, considering a € to USD change of 1.24 in 2005 and inflation from 2005 to 2021. The estimates are based on the analysis of the adult programme, as the estimates for the dislocated workers programme are considered not reliable by the authors due to confounding factors.

³⁴⁶ Levy et. Al (2019): [What works for active labor market policies?](#) CID Working Paper Series

³⁴⁷ See for instance: What Works Centre for Local Economic Growth (2016), [Evidence review: Employment training](#).

³⁴⁸ Algan et al. (2021): [Boosting Social and Economic Resilience in Europe by Investing in Education](#). EENEE Analytical Report No. 42. European Commission.

1.2 Employability

Employment effects are mostly examined at the individual level and for those out of employment. In many countries, training is an important component of active labour market policies (ALMP). Card et al. (2018), for example, in their review of over 200 recent studies of active labour market programmes found that those which contained a training element might have little to no impact in the short term, but tend to reveal positive impact two to three years after programme completion.³⁴⁹ Their results show that the mean ALMP effects on the probability of being employed is 2 ppts in the short term, 6.6 ppts and 6.7 ppts in the medium to long term (so almost identical). They do not disclose information on the value or length of training and only test for possible differences in effects for training durations over nine months (without finding any). Similarly, Levy-Yeyati et al. (2019) indicate significant employment effects (6.6 ppts) resulting from ALMPs where the emphasis is upon training.³⁵⁰ In the case of the latter, information on the median cost of the training is available, allowing to assume what some average effect from a week of training on employment chances might be (see Section 5). Similarly, the evidence review from the What Works Centre (2016) generally found that the evidence points to training, of one kind or another, having a positive impact on entering and remaining in employment.³⁵¹

1.3 Heterogeneity of returns

The average impacts reported above hide substantial heterogeneity across individuals and types of training, but it proves challenging to distill clear lessons from the literature concerning specific groups of adults or types of training:

Gender: Returns to schooling are estimated to be slightly higher for women³⁵², and also Card et al. (2018) identify somewhat stronger impacts of training on women. By contrast, gender is found to have no effect in Levi-Yeyati et al. (2019). In conclusion, heterogeneity of returns by gender seems to either be absent or slightly in favour of women.

Age: Evidence is scarce overall. Card et al. (2010)³⁵³ find higher short-run employment increases among younger adults, but higher medium and long-term increases in employment for older adults. Dauth and Toomet (2016) find that subsidised training for low skilled and older workers improves the probability of remaining in paid employment.³⁵⁴ However, the meta-analysis by Yeyati et al. (2019) find no significant effects of age.

Educational attainment: This aspect is not directly investigated in the meta-analysis from Card et al. (2018).³⁵⁵ However, it finds stronger effects for long-term unemployed, which is suggestive of

³⁴⁹ Card et al (2018), [What works? A meta-analysis of recent active labor market program evaluations](#). Journal of the European Economic Association.

³⁵⁰ Levy Yeyati et al. (2019), [What works for active labor market policies?](#) CID Working Paper Series.

³⁵¹ What Works Centre (2016) *ibid*.

³⁵² Psacharopoulos and Patrinos (2018), [Returns to Investment in Education, A Decennial Review of the Global Literature](#), World Bank Group.

³⁵³ Card et al. (2010), [Active labour market policy evaluations: A meta-analysis](#). Economic Journal.

³⁵⁴ Dauth and Toomet (2016), [On Government-Subsidized Training Programs for Older Workers](#). Labour.

³⁵⁵ Card et al. (2018): [What Works? A Meta Analysis Of Recent Active Labor Market Program Evaluations](#), Journal of the European Economic Association.

somewhat higher returns for individuals most affected by skills obsolescence. In the meta-analysis of recent RCTs from Levy-Yeyati et al (2019), educational attainment appears to have no statistically significant effect on the impact of training on wages or employability. All in all, no clear-cut conclusion can be drawn from the literature, with estimates that vary both in sign and intensity but no clear trend allowing to reliably assume decreasing or increasing returns to training based on different levels of educational attainments.

Types of training: Most evidence on wage and employment returns is based on job-related training and often employer-sponsored. However, the literature also reports significant returns to basic skills (such as literacy³⁵⁶) and other transversal skills including language skills.³⁵⁷ The growing importance of non-routine cognitive skills is also emphasised by studies analysing changes in skill demand from a perspective of job tasks where either machines or humans have a comparative advantage (Acemoglu and Autor, 2011; Autor et al., 2013; Handel, 2016).³⁵⁸ The evidence suggests that the digital transformation increases the value of transversal skills³⁵⁹, in particular the combination of technical with social skills.³⁶⁰ These findings are consistent with evidence that increasing the freedom of individual's choice of training leads them to select training conferring somewhat more transversal skills, but does not reduce impacts on wages or employment (see Annex 11).

1.4 Returns to scale and human capital depreciation

One aspect of particular interest for a policy that looks at training from a lifelong perspective is that of the interaction between existing levels of skills and the effect of training, further distinguishing for intensity and recurrence of training. The specific interest here is about marginal returns. In addition, to discuss the cumulative effect of a policy that is repeated over time it is important to discuss if and to what extent the stock of human capital depreciates over time.

This is important as, in discussing a structural measure that aims to increase levels of participation in adult learning from a lifelong learning perspective, attention should be given to whether each additional unit of training supported every year generates the same returns, and whether the returns from skills acquired in the past, can produce the same additional effects of those just acquired.

Thus, there are challenges to the possibility of drawing clear cut conclusions on whether returns to training should be assumed as decreasing, constant or even increasing. At the same time, there exists a rich and consolidated literature on returns to education, which could serve as a benchmark. In addition, the literature has investigated with some more coherent findings, the issue of depreciation of human capital. The following sub-paragraphs will shed some light on the individual questions listed above. Some conclusions are offered further below.

³⁵⁶ Mason et al. (2010). [The Value of Skills: An Evidence Review](#). Wath-upon-Deerne: UK Commission for Employment and Skills.

³⁵⁷ Lang (2021): [Employment effects of language training for unemployed immigrants](#). Journal of Population Economics.

³⁵⁸ Acemoglu. and Autor (2011): [Skills, Tasks and Technologies: Implications for Employment and Earnings](#) in Ashenfelter and Card. (eds.). Handbook of Labor Economics: Volume 4. Amsterdam: Elsevier. Autor, Levy, and Murnane (2003): [The Skill Content of Recent Technological Change: An Empirical Exploration](#). Quarterly Journal of Economics. Handel (2016): [What Do People Do at Work? A Profile of U.S. Jobs from the Survey of Workplace Skills, Technology, and Management Practices \(STAMP\)](#). Journal for Labour Market Research.

³⁵⁹ European Commission (2020), [Facing the Digital Transformation: are Digital Skills Enough?](#)

³⁶⁰ Deming (2017), [The Growing Importance of Social Skills in the Labor Market](#). The Quarterly Journal of Economics.

Differences by duration and or frequency of training: In the meta-analysis of ALMP from Card, Kluge and Weber (2018), no precise information is available on the cost of training. Nevertheless, the authors control econometrically whether the average effects they estimate differ when training duration exceeds 9 months. They find no statistically significant difference in the wage effects of training of longer duration. However:

- a) training duration is not necessarily a perfect proxy of cost;
- b) the authors only control for duration of support over the full sample of studies they have (including non-training programmes);
- c) the authors only control for duration of support focusing on the average effect of the programmes (not disaggregated by short vs long term).

Hence it is not possible to exclude that an increasing value of training is associated with higher benefits, as it would be in presence of constant (and even diminishing, non-negative) returns.

A positive correlation between the intensity of support and labour market effects is confirmed by the large RCT carried out in the US on the individual training accounts. In the related study from Perez-Johnson, Moore & Santilliano (2011)³⁶¹ three different intensities of support were compared across slightly different delivery modes. The study concluded that in the model with higher average values of training entitlements (approx. \$4 600 versus approx. \$2 800), 4 ppts more of the group ended up in high paying jobs, and 5ppts in jobs consistent with the occupation they trained for. This led to a 3-6% increase in the quarterly earnings during the period of observation. This study seems suggestive of positive returns to training, and drives the results of the Cost-Benefit analysis carried out in the same study where the model with higher average values of training entitlements yields a better cost-benefit ratio. This is suggestive of constant or even increasing returns to scale for the first training episode.

Insights on returns to scale can also be drawn from Brunello et al. (2012) and EIB (2020). According to the former, heterogeneity of returns to wages which favour enterprises below 100 employees could be explained by the fact that “[..] Policies that induce firms and workers to invest in additional training are likely to produce higher returns in smaller firms because the marginal benefits to training are decreasing in the quantity of training”.

In the more recent work from the EIB (2020)³⁶², geographical heterogeneity of returns to productivity (higher in Southern and Eastern Europe) is explained along similar lines, indicating that this finding is consistent with decreasing returns to training. In these two papers, the best fitting function for marginal returns is the cube root function, with declining returns to scale. The same specification was discussed as best fitting in Frazis and Lowenstein (2006).³⁶³

In summary, the findings from the literature are mixed. Whilst there is a consensus that marginal returns are positive once it is accounted for lock-in effects, their trend (decreasing, constant or increasing) cannot be reliably assumed as it will likely depend on multiple interrelated factors.

³⁶¹ Perez-Johnson, Moore & Santilliano (2011): [*Improving the Effectiveness of Individual Training Accounts: Long-Term Findings from an Experimental Evaluation of Three Service Delivery Models*](#), Final Report, Mathematica Policy Research.

³⁶² EIB (2020): [*Financing constraints and employers' investment in training*](#). Economics – Working Papers 2020/05.

³⁶³ Frazis L and Lowenstein M, (2006) On the Job Training, Now, The Essence of Knowledge.

According to the literature on returns to schooling, returns tend to fall between the low and medium qualified, but remain constant for further increases. Constant returns are also accepted in influential literature on endogenous growth models. When it comes more specifically to adult learning, which may or may not follow a pattern that is similar to investment in human capital through formal / initial education, findings on training at firm or individual level seems to suggest overall declining marginal returns to training. For this reason, and to ensure a sufficiently conservative approach to the long-term macroeconomic estimates, decreasing marginal returns to training accumulation are used in the simulations later described in Annex 12C.

However, as highlighted above, no conclusive evidence is available and recent meta-analyses find little to no confirmation that initial educational levels matter when the effect of a training episode is assessed. For instance, in one of the few randomised control trials focusing on the long-term labour market outcomes of a training entitlement scheme³⁶⁴, more generous entitlements were associated with comparatively higher returns to the individuals and the society. This suggests to employ linear rates when discussing the difference between a one-off 30 and 50 hours training entitlement given to different target groups (i.e. hourly effects are the same for all target groups and only vary pro-rata with the value/duration of the training entitlement), but consider decreasing returns for the longer-term dynamic of recurring training episodes and their cumulative effect on productivity over time.

Depreciation of human capital: Skills obsolescence and human capital depreciation are widely acknowledged and investigated in the literature. Their existence is part of the justification for the importance of lifelong learning. These aspects also have a bearing on the estimation of the medium to long run effects of any training policy, as the focus lies on the *cumulative effect* of learning on productivity, and via productivity on other macroeconomic variables.

In order to identify some general findings applicable to the current simulation it is important to start from an understanding of the drivers of human capital depreciation and skills obsolescence.

Skills obsolescence might occur in (at least) two different ways:

- a “natural” wear of skills due to the aging process, injuries, changing requirements or working conditions in a sector for individuals in employment;
- the “atrophy of skills” for individuals who fall outside of the labour market or have career interruptions.

There are also different ways of measuring such depreciation both direct (mostly survey based) or indirect (looking at labour market outcomes). To the end of this brief review, the effect on labour market outcomes (wages and productivity) are the most relevant. Clearly these indirect measures are based on observational studies which can be biased by imperfect labour markets rewarding e.g. loyalty of the workers, suffering from low job mobility etc.

³⁶⁴ Perez-Johnson, Moore & Santilliano (2011): [*Improving the Effectiveness of Individual Training Accounts: Long-Term Findings from an Experimental Evaluation of Three Service Delivery Models*](#), Final Report, Mathematica Policy Research.

As recently estimated in Lentini and Gimenez (2019)³⁶⁵, on top of substantial additional literature on the theme, there is strong sectoral dimension to human capital depreciation. The intuitive correlation between intensity of skills in a given sector and human capital depreciation tends to be confirmed empirically. In high-skill sectors, the authors identify a rate of depreciation of 6%, whereas this falls to 1% in low-skill ones. An additional source of heterogeneity in human capital depreciation appears to be the individual's educational level and type. According to Weber (2014)³⁶⁶, academic and concept-based education protects workers from obsolescence better than vocational. This is fully confirmed in the influential work form Hanushek et al (2017).³⁶⁷ The latter finding goes on to highlight the relevance of human capital depreciation in the context of vocational training.

In the literature reviewing average returns to training, depreciation of human capital is factored in in the estimates from Conti et al. (2005), Dearden et al. (2006) and Brunello et al. (2012) at a rate of 1-15%. In particular in Brunello et Al (2012), this entire range of possible depreciation rates is tested to understand which is the better fit to the data available. The results identify a 3% depreciation rate as the best fitting. This value seems to fall in the middle of the range defined by Lentini and Gimenez (2019) taking into account the sectoral variation in the depreciation rates. Hence, this is the value retained for the long-term simulations described in Annex 12C.

1.5 Wider benefits for individuals

In terms of well-being there is evidence showing improved well-being of individuals, including improved health as a result of participation in learning. Jenkins (2011) shows that participation in evening classes by older adults has a positive effect on their perception of their general well-being.³⁶⁸ Hammond and Feinstein (2005) demonstrate that adult learning can lead to increased self-confidence for participants³⁶⁹. A report for the UK's Mental Health Foundation (2011) showed that community-based learning courses for adults were successful in improving the subjective mental wellbeing of adults³⁷⁰. Feinstein et al (2003) analysed the contribution of adult learning to improvements in physical health and showed that it can reduce the likelihood of smoking and consumption of alcohol and increase the likelihood of exercise³⁷¹. Sabates and Feinstein (2006)³⁷² found a positive association for women participation in adult learning to take up cervical screening. In addition, data analysis in a study of the European Commission on effectiveness of adult learning policies and their effectiveness in Europe (2015) demonstrates a strong positive and statistically significant correlation between an individual's life satisfaction and their participation in learning. This association is stronger for people

³⁶⁵ Lentini and Gimenez (2019), [Depreciation of human capital: a sectoral analysis in OECD countries](#), International Journal of Manpower.

³⁶⁶ Weber (2014), [Human capital depreciation and education level](#), International Journal of Manpower.

³⁶⁷ Hanushek et al. (2017), [General Education, Vocational Education, and Labour-Market Outcomes over the Life-Cycle](#), Journal of Human Resources.

³⁶⁸ Jenkins, A. (2011): [Participation in learning and wellbeing among older adults](#). International Journal of Lifelong Education.

³⁶⁹ Hammond, C. & Feinstein, L. (2005): [The Effects of Adult Learning on Self-Efficacy](#). London Review of Education.

³⁷⁰ Mental Health Foundation (2011): [Learning for Life. Adult learning, mental health and wellbeing](#).

³⁷¹ Feinstein and Hammond (2007), [The contribution of adult learning to health and social capital](#). Oxford Review of Education.

³⁷² Sabates, R., & Feinstein, L. (2006): [The role of education in the uptake of preventative health care: the case of cervical screening in Britain](#). Social science & medicine, 62(12), 2998-3010.

with lower qualification levels. This suggests that participation in learning is linked to an individual’s perception of their wellbeing³⁷³. Yamashita et al (2017) showed that additional participation in organised education programs was positively associated with life satisfaction.³⁷⁴

In terms of civic participation, Fujiwara (2012) showed that the social value of increased community participation owing to participation in adult learning is worth about £130 to the learner.³⁷⁵ Feinstein et al (2003) show that there is an improvement in civic attitudes arising from participation in adult learning, as well as a 3% increase in the number of adults who were likely to join community organisations as a result of participating in adult learning.³⁷⁶ Moreover, adults with low literacy (PIAAC level 1 or below) are nearly twice as likely as adults with high literacy skills (scoring at level 4 or 5) to say that they trust others very little.

2. Returns to enterprises

Beyond individuals, also enterprises benefit from a more training workforce. Returns to enterprises/employers can be measured primarily in terms of labour productivity. There are additional benefits including contributions to company innovation, developing skills capacity (to avoid shortages) and business survival.

2.1 Productivity

Table A10.2 below provides an overview over the most relevant studies that review in detail the effect of training on firms’ productivity which contain information on the value of the related investment in training are listed below. Their “30-hour equivalent” is also calculated for comparability.

Table A10.2: Estimated impact of training on productivity

Authors	Volume of the training	Increase in productivity	
		Net	30-hour training entitlement equivalent ³⁷⁷
Dearden et Al. (2006) ³⁷⁸	Around 80 hours	0.6% at the industry level per each 1 percentage point increase in employees’ participation rates in training over the last 4 weeks	22.4%

³⁷³ European Commission (2015): [An in-depth analysis of adult learning policies and their effectiveness in Europe](#). Prepared by ICF Consulting Services Limited.

³⁷⁴ Yamashita et al. (2017): [Types of Learning Activities and Life Satisfaction among Older Adults in Urban Community-Based Lifelong Learning Programs](#). Activities, Adaptation, & Aging.

³⁷⁵ Daniel Fujiwara (2012): [Valuing the impact of adult learning: an analysis of the effect of adult learning on different domains in life](#).

³⁷⁶ Feinstein, L. et al. (2003): [The contribution of adult learning to health and social capital](#). London: Centre for Research on the Wider Benefits of Learning.

³⁷⁷ Conversions to 30-hour training entitlement equivalent are based on information on the hours of training per individual examined in the papers under review. Where these are not available, information on the cost of training or training duration is considered. An hour-to-€ratio of around €15 per hour is used, in line with evidence on training from Annex 11, section 4.1 “training costs”. In case both the cost and duration of the training are included in the paper and their ratio differs significantly from the average ratio used in this study, an adjustment is made. In any event, the estimates produced should not be considered as precise point estimates but as indicative values that allow defining a range of plausible increases in individual productivity from a 30-hour training entitlement in the medium term.

³⁷⁸ Dearden, L., Reed, H., & Van Reenen, J. (2006): [The impact of training on productivity and wages: Evidence from British panel data](#). Oxford bulletin of economics and statistics.

Konings and Vanormelingen (2015) ³⁷⁹	37 hours/€1 400	27.9%	Roughly 17%
Martins (2020) ³⁸⁰	Approx. 35 hours ³⁸¹	5%	5% (the cost is slightly lower)
Conti (2005) ³⁸²	Hourly effects provided	0.1% per hour	3%
EIB (2020) ³⁸³	€20 (10% increase in training per employee)	0.32% (This is 0.09% in northern Europe, 0.27% in southern Europe and 0.048% in central and eastern Europe. These results are considered consistent with decreasing returns to training)	6-7%

From the above, it can be seen that returns to training on firms' productivity can be quite substantial, ranging from 3% to 22.4%. Also OECD research³⁸⁴ points to substantial productivity returns of training, shared between enterprises and their workers. Unfortunately, these studies are not always able to fully control for self-selection into training/endogeneity, and may be subject to some overestimation of returns.

In Dearden et al. (2006), Konings et al. (2015) and Conti (2005), increases in firms' productivity are also coupled with wage increases for employees. This allows identifying a partial equilibrium relationship between the increases in wages and those in productivity. Based on these studies it is possible to identify a productivity to wages ratio of roughly 2:1. This is helpful as it allows to use increases in wages calculated in studies that control for endogeneity through instrumental variables as a proxy of increases in productivity, to come to robust estimates.

2.2 Further benefits of training

There is also evidence linking training provision to a broader range of positive enterprise-level outcomes. While it is usually derived on the basis of data on enterprise-level provision of training (the most frequent type of adult learning, see Annex 6.2), it is likely indicative of positive impacts of a more trained labour force on enterprises more generally.

Innovation Performance: Cedefop's meta-analysis of training and workplace learning on a firm's performance on innovation (2012) finds that the proportion of companies providing training,

³⁷⁹ Konings and Vanormelingen (2015): [The Impact Of Training On Productivity And Wages: Firm-Level Evidence](#), The Review of Economics and Statistics.

³⁸⁰ Martins, Pedro S. (2020) [Employee Training and Firm Performance: Quasi-experimental evidence from the European Social Fund](#), GLO Discussion Paper Series.

³⁸¹ Ibid. "Considering the average number of workers per firm, the approved training hours figure amounts to a mean number of training per worker similar to the 35-hour figure established in labour law". In monetary terms, this equals to an average of €267 per worker (€30 000 per firm, 112 workers) in PT values, 2007.

³⁸² Conti, G. (2005) [Training, productivity and wages in Italy](#), Labour Economics.

³⁸³ EIB (2020): [Financing constraints and employers' investment in training](#).

³⁸⁴ OECD (2019), [Returns to different forms of job related training](#).

employee participation in training, and the costs of continuing vocational training (CVT) as a percentage of total labour costs have a positive relationship with innovation performance.³⁸⁵

Avoidance of skills shortages: The other area where investment in skills can have a pay-off is in relation to avoiding skill shortages or internal skill gaps (i.e. where the existing workforce are not as proficient as required to meet a company's product market strategy). One has to be careful because companies at the cutting edge of technological developments often report skill shortages because of their cutting-edge position and the difficulties the supply-side has in keeping pace with that change. But overall, there is evidence that employers which train are less likely to encounter skill shortages and, critically, are more likely to have product market strategies which are oriented towards higher value segments of the market.³⁸⁶ There does appear to be a symbiotic relationship between investing in skills via training, innovation, and product market strategies.

There has been a longstanding interest in promoting high quality employment and high performance of the workforce. A central element of high performance of the workforce is not only the provision of skills training so that people are equipped to meet the demands of the enterprises, but they are granted a degree of autonomy of in exercising those skills.³⁸⁷ There is seen to be a virtuous circle between employers investing in the human capital of their employees, increasing levels of job satisfaction, and reinforcing the bond between employer and employee all of which feeds into improved organisational performance. It is likely to be the case that high-quality employment and high performance working are dependent to some degree on the provision of training (or human capital development more generally) by the employer.

Business survival: Research from the UK indicates that companies which train are more likely to survive as a result of the training (and by implication the skills they invest in). Non-training companies are estimated to be nearly twice as likely to go out of business than their counterparts who train (other things being equal).³⁸⁸ The failure rate of companies not training was 27 per cent over six years compared with 11 per cent for those that did so.

3. Returns to society

The wider returns to society can be measured in economic, social and environmental terms, each summarised below.

3.1 Macroeconomic benefits

An analysis of the OECD (2013) shows that countries with high rates of participation in adult learning are more competitive.³⁸⁹ This is corroborated by the statistically significant and positive correlation between the participation rate of employed individuals and GDP per resident. PIAAC data illustrate

³⁸⁵ Cedefop (2012): [Learning and innovation in enterprises](#).

³⁸⁶ Mason (2004): [Enterprise product strategies and employer demand for skills in Britain: evidence from the Employers Skills](#).

³⁸⁷ Green et al. (2016): [Skills and work organisation in Britain: a quarter century of change](#). *Journal for Labour Market Research*.; Findlay et al. (2017) ['Opportunity Knocks?: The Possibilities and Levers for Improving Job Quality'](#), *Work and Occupations*; Gloster et al. (2016). [Mapping investment in adult skills: which individuals, in what learning and with what returns?](#).

³⁸⁸ Collier et al. (2005): [Training and establishment survival](#). *Scottish Journal of Political Economy*.

³⁸⁹ OECD (2013): [OECD Skills Outlook 2013: First Results from the Survey of Adult Skills](#).

the central role that basic skills play in shaping economic outcomes. In the EU17, an increase of skills by around 40 points (slightly less than one skills level) is linked with an increase in wages ranging from approximately 5% in Denmark, Finland and Italy to more than 10% in the UK³⁹⁰. At national and European level, it has been estimated that if Europe achieved its current literacy benchmark, this could lead to an aggregate GDP gain of €21 trillion over the lifetime of the generation born in 2010.³⁹¹ These estimates are particularly relevant as they have the advantage of taking into account general equilibrium dynamics, although typically rely on slightly simplified assumptions to account for the complexity of the estimation.

A more recent study (Cedefop, 2017)³⁹² has reviewed the macroeconomic returns to training low-skilled adults in the EU and has generated significant positive, illustrative effects through its scenario analysis in respect of gross earnings, tax revenues and benefits to individuals in terms of health and crime benefits. In the upskilling scenario (7.4%) of the low-skilled, total net benefits over ten years could equal €2 013 billion³⁹³ and €3 528 billion in a zero low-skilled (0%) scenario with increases in annual GDP (2025-50) at €200 billion and €410 billion respectively due to the reduction or elimination of low skilled adults.

3.2 Social benefits

Social benefits in general, arising from adult learning, are largely found from evidence showing relevant statistical relationships between adult learning and community. Countries having high skills levels in literacy and numeracy show a higher participation in volunteer and political activity as well as higher levels of trust.³⁹⁴ This is confirmed by a positive and statistically significant correlation between participation in learning and voter turnout in the most recent EU elections.³⁹⁵ In addition to that, an increased participation in learning also affects a reduction in economic inequality (as measured by the Gini coefficient): an increase in the participation rate in learning by 10 percentage points is associated with a decrease of two points in the Gini coefficient (with zero representing equality on Gini coefficient).³⁹⁶ Furthermore, the increase in employment achieved through training generates a reduction in welfare dependency and thus a decrease in the cost of social benefits for Public Authorities (see Huber et al., 2011 for a study with German data; and OECD, 2017 for the Netherlands).

Targeted health education allows to reduce chronic illness and increase the quality and years of healthy life of older people. The review of roughly 600 studies found that almost 64% of the studies reported positive health effects on the learners from their participation in a therapeutic education

³⁹⁰ European Commission (2013). *The Survey of Adult Skills (PIAAC): Implications for education and training policies in Europe*. DG-EAC. OECD (2013). *OECD Skills Outlook 2013: First results from the Survey of Adult Skills*.

³⁹¹ Hanushek, Eric and Woessmann, Ludger (2011): *The Cost of Low Educational Achievement in the European Union*, EENEE Analytical Report No. 7.

³⁹² Cedefop research paper 5560 (2017): [Investing in skills pays off – the economic and social costs of low-skilled adults in the EU](#).

³⁹³ Of which €1 030 billion would be health and crime benefits and a further €904 billion in aggregate net income before taking into account opportunity costs.

³⁹⁴ [OECD Skills Outlook \(2013\)](#).

³⁹⁵ European Parliament (2014): [Results of the 2014 European elections](#).

³⁹⁶ Labour Force Survey (2013): *EU Statistics on Income and Living Conditions*, 2012.

programme³⁹⁷. But there also other positive effects about the expenditure on healthcare coming from participation in learning: for example, in the UK³⁹⁸ the postponement of entry into residential care by one month because of participation in learning might lead to potential savings worth between £18.2 million and £36.3 million to the state per annum at that time.

3.3 Environmental benefits

Participating in adult learning programmes also leads to an improvement of environmental literacy and a better behaviour in relation to the environment among adults³⁹⁹ as well as reduction in in reoffending rates.⁴⁰⁰ From the outset there seems to be a consensus that there overall is an increasing demand for green skills. For example, the employment and social impacts of climate change policies was recently addressed in the Commission publication “Employment and Social Developments in Europe 2019”.⁴⁰¹ It assessed that efforts to meet the climate targets by 2050, would by 2030 lead to 1.1% higher employment and 0.5% higher GDP compared with a baseline scenario. This amounts to an additional 1.2 million jobs in the EU by 2030, on top of 12 million jobs expected to be created under the baseline from 2015 to 2030. The expected positive impacts are largely due to the investment activity required to achieve such a transition, together with the impact of lower spending on the import of fossil fuels. Furthermore, lower consumer prices, notably of solar photovoltaic electricity, are expected to boost disposable incomes, consumer expenditure and consequently the demand for consumer services, which are generally labour intensive.

Another recent assessment made regarding the need to equip the existing workforce with the necessary green skills to meet the requirements of the green transition is that of the Commission Communication, COM(2020) 662 final, "A Renovation Wave for Europe – greening our buildings, creating jobs, improving lives". It concludes that one of the main developments needed to achieve the EU environmental and climate targets is that of increased energy efficiency renovations of buildings. Furthermore, it finds that renovation works are labour-intensive, create jobs and investments rooted in often local supply chains, can generate demand for highly energy and resource-efficient equipment and bring long-term value to properties. By 2030 an additional 160,000 green jobs could be created in the EU construction sector through a renovation wave.

4. Selection of coefficients for impact estimates

Table A10.3 presents the estimated impacts of a training of 30 hours, selected on the basis of the literature review in this Section and used in Annex 12 to quantify the expected benefits of the policy packages. All selected coefficients are considered to be “middle ground” estimates in view of the evidence. The uncertainty reflecting these middle ground estimates is reflected in Annex 12 in the

³⁹⁷ Lager et al. (2010): *Efficacy of therapeutic patient education in chronic diseases and obesity*. Patient Education and Counselling.

³⁹⁸ Schuller and Watson (2009): *Learning Through Life: Inquiry into the Future for Lifelong Learning*. NIACE, Leicester.

³⁹⁹ Digby (2013): *The Impact of Non-formal and Informal Learning on Adult Environmental Behaviors*. International Electronic Journal of Environmental Education.

⁴⁰⁰ Gordon and Weldon (2003): *The Impact of Career and Technical Education Programs on Adult Offenders: Learning Behind Bars*. Journal of Correctional Education.

⁴⁰¹ <https://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=8219>

form of sensitivity checks, notably probing the robustness of key conclusions to more pessimistic assumptions on the different parameters.

Table A10.3: Coefficients selected for the estimation of the benefits of a 30 hour training

Variable	Partial Equilibrium (effects on participants/beneficiaries)
Wages	<p>1% increase.</p> <p>This estimate is based on widely acknowledged literature⁴⁰² employing an instrumental variable approach, hence likely to duly address self-selection issues.</p>
Productivity	<p>2% increase</p> <p>This estimate is drawn at the lower bound of the range of estimates discussed in the literature review above.⁴⁰³</p> <p>It is tied (fixed ratio) to the increases in wages, which are, in turn, calculated using instrumental variables. This should increase robustness towards problems of self-selection.</p> <p>For the longer-term macroeconomic estimations (i.e. Annex 12C), this productivity gain:</p> <ul style="list-style-type: none"> - Depreciates over time at a rate of 3% per year. - Does not fully accumulate year on year. Their cumulative increases over time are factored in based on a cube root function (decreasing marginal returns), to favour a more conservative approach to the long-term estimates.
Employment effects	<p>2.5 ppts increase in the medium to long-term probability of being in employment (for those not in employment)</p> <p>This is deemed to be a middle ground estimate, as:</p> <ul style="list-style-type: none"> - They are based on the two influential meta-analyses discussed above. - Although in Card et al. (2018) there is no specific information on the cost of the training, heterogeneous effects for very long trainings are tested and rejected. Information on the median cost of trainings is available in Levy-Yeyati et al. (2019) which allows to scale down proportionally the measured average effect to a training duration of 30 hours.

These effects are then scaled proportionally for target groups receiving 50-hour training support and, given the inconclusive evidence on heterogeneity of returns, are applied linearly to the different target groups addressed by the policy packages for the purpose of the short to medium-term CBA analysis on direct impacts (see Annex 12B).

Estimates on productivity gains, which is the least likely to produce displacement and can thus be measured quite reliably also at the micro (individual or enterprise) level, are also used as an input to the macroeconomic simulation described in detail in section 12C. Broader macroeconomic effects (including on structural increases in employment) are assessed in Section 12C.

ANNEX 11: EVIDENCE ON INDIVIDUAL TRAINING ENTITLEMENTS

Individual training entitlements can be defined as a personal budget that is at the individual's disposal to cover the direct costs of his/her training/course fees within a set time period. As discussed in

⁴⁰² See in particular Brunello et al. (2012): [Training subsidies and the wage returns to continuing vocational training: Evidence from Italian regions](#). Labour Economics.

⁴⁰³ See in particular Konings and Vanormelingen (2015): [The Impact Of Training On Productivity And Wages: Firm-Level Evidence](#), The Review of Economics and Statistics.

Section 5.3, they are currently most often provided in the form of training voucher schemes (see Annex 8.2 for an overview, and the case studies in Annex 13 for examples). They can also be delivered via personal accounts (see the case study on Singapore in Annex 13, and Annex 14 on the French CPF). The purpose of this Annex is to provide an overview of evidence on the effectiveness of individual training entitlements at increasing participation in labour market relevant training among recipients, and to summarise information on the costs of providing training entitlements.

1. Effectiveness of training entitlements

In order to assess the effectiveness and additionality of the type of entitlement two inter-related factors need to be considered:

1. the take up rate of the training entitlements; and
2. the extent of deadweight loss associated with the intervention – i.e. the extent to which training would have taken place in any case (i.e. to provide the basis for estimating the net impact or additionality of the intervention).

1.1 Take up rates of training entitlements

There are few schemes offering training entitlements with broad eligibility conditions, with no cost-sharing requirements and for which detailed data on take up rates is available. These are the French CPF⁴⁰⁴ and the Singapore SkillsFuture Credit (SFC) and a Swiss experiment on adult learning vouchers. More frequently, existing training voucher schemes target vulnerable groups such as the low skilled, and further evidence comes from a Dutch training voucher scheme. Table A11.1 summarizes the available evidence on take up of these training entitlements, further discussed below.

Table A11.1: Summary of participation levels by the various schemes

Name	Type of scheme	Scope	Expiring period	Avg. value	Avg. Take up	Heterogeneity in take up
Adult education vouchers (CH) ⁴⁰⁵	Adult learning voucher	Broad scope (randomly selected sample)	6 months	€600 (worth about 21 hours)	18.4% over 6 months	Low take up at low face values (12% at €160, above 20% for €600 and 1 200) and for low qualified individuals (9.5%).
Compte Personnel de Formation (FR)- see Annex 14	Personal training account (yearly accumulation)	Broad Scope	None	€500 or per year (€800 for the low qualified)	13-16%* over 1 year	In data since recent reform, no evidence of under-representation of low-qualified (cf. Annex 14).

⁴⁰⁴ An evaluation of the CPF is planned but not yet implemented

⁴⁰⁵ See See Schwerdt et al. (2012), [The impact of an adult education voucher program: Evidence from a randomized field experiment](#). Journal of Public Economics.

Name	Type of scheme	Scope	Expiring period	Avg. value	Avg. Take up	Heterogeneity in take up
				(worth about 30-50 hours)		
SkillsFuture Credit (SGP) - see case study in Annex 13	Personal training account (no regular provision of additional entitlements) ⁴⁰⁶	Broad Scope	None	€310	23.5% over 5 years/ 7% in 2020	Data not available.
Training voucher for low skilled workers (NL) ⁴⁰⁷	Adult learning voucher	Targeted to low skilled workers in selected industries (randomly selected sample)	2 years	€1 000	41% over two years	

* Estimated values

Take up of Swiss adult education vouchers: The Swiss experiment was a large-scale randomized field evaluation of a programme which issued vouchers for adult education in Switzerland in 2005-2006. Vouchers were offered to a representative sample of Swiss citizens. The adult learning vouchers varied in value, at €160, 600 and 1 200 respectively, and could be supplemented by individuals' own resources. The vouchers could be redeemed over a six-month period. The authors estimate that the average voucher value was sufficient to pay for about 20 lessons/ 30 hours. Two papers⁴⁰⁸ reviewed the experiment giving information on take-up rates and the way these varied and found that the average take-up rate was 18.4% over the six-month period.⁴⁰⁹

Take up of entitlements in French CPF: The French CPF differs from the Swiss experiment as the training entitlements, instead of expiring, accumulate yearly until a threshold of €5 000 (€8 000 for the low qualified) is reached. Since the average training hour of CPF-funded training costs about €15, the annual entitlement is sufficient to buy about 30-50 training hours. However, individuals do not have to use their training entitlements immediately and are able to take up longer or more costly

⁴⁰⁶ Top-ups for two specific target groups have been granted in response to COVID-19, see Annex 13.

⁴⁰⁷ See Hidalgo et al. (2014), [The Impact of Training Vouchers on Low Skilled Workers](#). Labour Economics.

⁴⁰⁸ Schwerdt et al. (2012): [The impact of an adult education voucher program: Evidence from a randomized field experiment](#), Journal of Public Economics and Messer, D. and Wolter, S. (2009): [Money matters: evidence from a large-scale Randomized field experiment with vouchers for adult training](#). CESifo Working Paper, No. 2548.

⁴⁰⁹ With some variation depending on the voucher value: 12.4% at €160, 21% at €600 and 22% at €1 200.

training spells. Data from the French CPF indicate that the median length of trainings is about 80 hours, confirming that individuals make use of their flexibility.⁴¹⁰

Precise yearly figures of the individual take-up rate of the CPF cannot be calculated. This is because individuals can purchase multiple trainings over time and data on unique users purchasing training each year is not available. A way of approximating annual take up is to compare the average number of activated profiles⁴¹¹ in a given period (e.g., at $t = -1$ considering a lag of 1 year from the activation of the profile and the validation of the training undertaken) and the number of trainings undertaken at $t = 0$.

Using this approach (based on the average number of activated profiles in 2019 and the total number of trainings validated in 2020), the estimated take up rate is around 13%. However, it is important to note that take up in France has seen a steep increase in recent months after the launch of the portal and app *Moncompteformation* (Annex 14). Applying the same approach as above (taking the average number of activated profiles in the first half of 2020 and a yearly value of trainings validated in the second half of 2020), the resulting take up rate is around 16%. Even if we assume there is no lag between profile activation and training validation, the estimated take-up rate is still around 13%. These take-up rates are hence slightly below those of the Swiss experiment.

Take up in the Singaporean SFC: Like the French CPF, the SFC in Singapore accumulated funds do not expire. But they do have a smaller face value (approx. €310). According to data from the Ministry of Education,⁴¹² five years after the scheme was introduced (in August 2020) 23.5 per cent of eligible Singaporean have used their credits. The largest level of take-up was in 2020, with around 190 000 individuals taking up training (7 per cent of the eligible population).⁴¹³ However, these take up rates are not easily comparable with the other ones: since SFC users could not expect regular top-ups, they were likely more reluctant to spend it/ more likely to “save” it than in a scheme providing entitlements regularly.

Take up of Dutch training vouchers: Other schemes provide further insights into the take-up of individual training entitlements. In the Netherlands, vouchers were offered to low qualified workers in specific sectors.⁴¹⁴ Vouchers could be redeemed over a period of 2 years, and the take up rate over this period was 41%.

Summary on take up of training entitlements: The French CPF and especially the Singaporean SFC have lower take up rates than the one observed in the Swiss voucher experiment, but: (i) the absence of regular entitlement top-ups can be expected delay redemption behaviour in SFC, and (ii) the annual

⁴¹⁰ The information is only available for approx. 80% of the trainings undertaken.

⁴¹¹ The actual take up rate should be that of target population vs trainings validated, whereas here the reference is only that of activated profiles. This seems however reasonable as the roll out of the system is still ongoing. The number of active profiles is however already over 50% of the employed and unemployed population in FR.

⁴¹² <https://www.moe.gov.sg/news/parliamentary-replies/20210104-skillsfuture-credits-utilisation>.

⁴¹³ <https://www.straitstimes.com/singapore/540000-singaporeans-benefited-from-skillsfuture-initiatives-in-2020-skillsfuture-singapore>.

⁴¹⁴ Vouchers were issued through the following development funds: Aequor Services in the agricultural sector, the Centre for Knowledge and Development of the Potatoes, Vegetables and Fruit Association, the Training Fund for the Food Industry, and the Natural Stone Centre.

rate of take up in SFC and in particular CPF has increased over time, with convergence in particular of CPF take up rates towards those observed in the Swiss voucher scheme. The Swiss voucher experiment has the advantage of allowing for a comparison between “treatment” and “control” group, which allows for an estimation of deadweight loss alongside take up (see next Section of this Annex).

On this basis, a take up rate around the Swiss value of 18.4% for training entitlements sufficient to purchase around 30 hours of training can be considered a reasonable “middle ground” estimate for annual take up.

Evidence on heterogeneity in take up rates across groups of adults: In their systematic review of financial incentives to increase participation rates, Vanderkooy et al. (2019) conclude that the higher qualified are more likely to take up training entitlements.⁴¹⁵ This is confirmed by a data from the CPF during the 2015-2018 period⁴¹⁶, and by the data from the Swiss voucher experiment: here, take-up was 9.5% for the low qualified, 17.1% for those with upper secondary education and 26.3% for those with tertiary education. By contrast, the Dutch voucher experiment suggest that higher take up rates are possible also among the low qualified, and recent data from the French CPF since its reform in November 2019 (which facilitated access, including by introducing a Smartphone app) suggests that the low-qualified are not longer under-represented among CPF users (see Annex 14). Nevertheless, a conventional assumption on the basis of the evidence is to assume lower take-up rates for the low qualified. Training voucher schemes also often report somewhat higher take up rates among women. However, there are no significant gender differences in the use of the CPF in France (Annex 14).

1.2 Controlling for deadweight loss

Deadweight loss occurs if training entitlements are used to finance training that would have taken place in any case/ if they crowd out private skills investments instead of triggering additional training.

It is important to stress from the outset that experimental research designs are crucial for the estimation of deadweight loss and, net impacts of training entitlement schemes on participation. In their absence, it is impossible to disentangle the causal contribution of individual training entitlements to any additional training carried out from training which would have been undertaken anyways.

The concept of deadweight in its simplest configuration (DW) can be measured as:

- $DW = Pnt/Pt$

Where

Pt = participation rate of the treated group (redemption rate)

Pnt = participation rate of the non-treated group

This configuration is standard practice in the literature given the inherent difficulties to gauge within an experimental design differences in the quality/ extent of the training undertaken. For instance, in Schwerdt et. al. (2012) the variable of interest is drawn from the Swiss Labour Force Survey (SLFS). In particular “*the selected SLFS module was the one that asked participants subsequently whether*

⁴¹⁵ Vanderkooy et al. (2019), [Investing in inclusive growth: A systematic review of the role of financial incentives to promote lifelong learning](#). Educational Research Review.

⁴¹⁶ OECD (2019): [Individual Learning Accounts: Panacea or Pandora's Box?](#)

they had attended fee-based courses within the past 12 months". Their conclusion is that "[...]the estimate shows that receiving a voucher increases the probability to participate in an adult education course in 2006 by 13 percentage points". This can be interpreted as the causal net impact on adult learning participation. This approach is common to other experimental and quasi-experimental studies discussing the impact of vouchers on training participation, including the previously introduced studies by Schwerdt et al. (2012) and Hidalgo et al. (2014).

However, as argued by Bauer et al. (2019),⁴¹⁷ **the mere fact that individuals would have undertaken some form of training even without support does not imply the absence of additional – economically valuable – training which was followed by participants thanks to the voucher** (i.e. beyond the net effects on adult learning participation). In this more nuanced configuration, participants who would have participated in training activities, but e.g. of lower value / duration or in the same reference year cannot be completely discounted from an assessment of the economic additionality of the voucher. One might also want to consider, in a fine-grained approach, whether there has been an effect in terms of training which have been followed earlier than planned without the voucher.

Unfortunately, no clear experimental evidence is available that employs such a nuanced assessment of the deadweight, but one example that delves a little further into the issue of deadweight is the first review of the Swiss experiment from Messer and Wolter (2009)⁴¹⁸, where a set of regressions are applied to the relation between voucher value and number of training activities followed within a year. The number of training activities is a discrete non-standardised measure which does not necessarily inform about the actual economic value of the training undertaken (it is impossible to distinguish between two 20-hour training sessions and one 40-hour one). However, it might, in practice, be reasonable to assume that there is a certain average duration of typical training offers and that therefore the number of trainings is a proxy to measure additionality of the vouchers beyond the net effects on adult learning participation.

Based on their findings, multiple participation in courses is not widespread (25 per cent of those receiving training). Their estimates though indicate that this is around 9 per cent higher than the control group.⁴¹⁹

In Bauer et al (2019), participants were posed counterfactual questions asking them to reflect about what would have happened to their training participation in the absence of the educational bonus (voucher). Possible answers included:

- I undertook a training of higher quality/price thanks to the voucher (24 per cent of respondents)
- I was able to participate earlier than planned thanks to the voucher (41 per cent of respondents)
- I was able to participate in additional training beyond what purchased with the voucher thanks to it (45 per cent of respondents)

⁴¹⁷ Bauer et al. (2019): [Evaluation des Bundesprogramms Bildungprämie \(BIP\)](#) Kantar, Public Division, München.

⁴¹⁸ Messer and Wolter (2009): [Money matters: evidence from a large-scale randomized field experiment with vouchers for adult training](#). IZA Discussion Paper 4017.

⁴¹⁹ Such values are however only statistically significant for vouchers of 1 500 CHF (€1 200).

The conclusion from the research is that the actual full deadweight from this specification of the survey goes down from 41 per cent to 15 per cent.

In addition to the effect on training in the current year, a few studies discussed the impact on subsequent participation in adult learning. The rationale for such an investigation is that a comprehensive review of deadweight loss should also consider if there is a causal effect of public support to participation in adult learning which stretches beyond the year of the support.

In Schwerdt et al. (2012) the estimates produced with the instrumental variable approach, hence those that should produce the more reliable results in terms of causality, find small positive effects on subsequent private investments in adult education. A similar finding is included in Hidalgo et. Al (2014) examining the Dutch experiment on vouchers offered to the low skilled workers. Results from the estimations show that voucher receipt affects the plans to enrol in a course over the subsequent 6 months by 20 ppts Although this is a measure of the “intention to train further” and not actual and measured additional private investment in training, it is another confirmation that public stimulus might change the attitude of the individuals towards further training opportunities. Perhaps the key point here is that the future intention to continue to train is likely to have some reduce any tendency towards participation rates diminishing in the future.

Finally, training entitlements can also stimulate private investment in training (i.e. that individuals or their employers top-up the training entitlement in some way). In the case of the CPF in France the incidence of crowding-in funding was low, but in the experiment with vouchers in Switzerland it was as high as 50 per cent. While this will not necessarily affect the number of people engaged in training, it is likely to have some impact on the overall duration and / or quality of the training experience.

On the basis of this discussion, it is useful to distinguish between four different ways in which the the action by an adult who makes use of her/his training entitlements and participates in training translates into additional training. These are summarized in Table A11.2.

Table A11.2: Classification of deadweight vs. additionality for an adult using training entitlements

I	II	III	IV
I would not otherwise have participated in training- <i>and on top, training entitlements crowd-in additional private resources or encourage me to participate more in the future</i>	I would not otherwise have participated in training	I would have participated in training anyway- <i>but to less a degree/at lower intensity</i>	I would have participated in training- <i>and to the same extent I do now</i>
Negative deadweight/ resources crowded in: <i>Take-up of training entitlements underestimates net increase in training participation</i>	No deadweight: <i>Take-up of training entitlements corresponds to net increase in training participation & economic additionality</i>	Partial deadweight: <i>economic additionality resulting from the higher training intensity</i>	Total deadweight: <i>no economic additionality</i>
Increase in the amount of training undertaken			
		Deadweight in the sense that the number of yearly participants in at least one training (as measured in the adult learning participation rate) does not increase	

The Swiss and Dutch voucher experiments reviewed in this Annex only provides estimates comparing a response corresponding to column II (*no deadweight/full additionality*) to a response corresponding to column IV (*total deadweight/no additionality*). This is because data on the duration/intensity of training, private co-funding or future training participation, which would allow for a more nuanced assessment, is not available.

In practical terms, this means that a deadweight loss estimate of 30% (as used below) means that of 100 additional adult learners making use of their training entitlements during a year, 7 of them would not otherwise have participated in learning in that year and 3 would have participated in some form of learning anyway. This estimate however overstates deadweight loss/ understates the additional training induced by the scheme if there is crowding-in of private resources (column I) and/or an impact on training intensity (column III).

However, the evidence reviewed in this Section suggests that both factors matter in practice. This points to the need of a more nuanced treatment of deadweight loss when assessing the costs and benefits of training than the one implied by the headline deadweight loss estimates often provided in the literature. Annex 12A explains how this is incorporated in the quantifications of impacts in this impact assessment.

1.3 Impacts of individual autonomy on take-up of training entitlements, training choices and labour market outcomes

Autonomy on the use of individual training entitlements differ depending on the scheme, and range from full autonomy among eligible courses in the French CPF to limited autonomy in many training voucher schemes administered by PES.

If the objective of a training entitlement schemes is to increase outreach and incentivise current non-learners to take up training that is tailored to their individuals needs but also strengthen the labour

market position of individuals through training, a key question is hence how individuals respond to autonomy in training selection. I.e., does autonomy increase take-up rates, what type of training courses do they choose, and is there a link between the degree of autonomy individuals have in training selection and subsequent labour market outcomes?

Impacts of autonomy on take-up rates: The limited available evidence available from a randomized-controlled trial Perez-Johnson et al. (2011)⁴²⁰ suggests that making prior career guidance a condition for the mobilisation of training entitlements in package A may have a negative effect on the take-up of training entitlements: taking as a reference the model with complete freedom of choice (no guidance, no veto power), the findings of the study point to a 4 percentage point reduction in the take-up rate of those bound to intensive guidance – despite the more generous entitlements – and a 6 percentage point reduction in the take-up rate of the model with moderate guidance and average entitlements’ value. A limitation is that the guidance requirement was not strictly enforced as counsellors in the experiment were hesitant to over-rule training choices by individuals. Hence, the observed differential take-up rates in the experiment may under-estimate the impacts of a more strictly enforced compulsory guidance rule on take up rates.

Impacts of autonomy on training choices: In the Swiss voucher scheme studied by Schwerdt et al. (2012), no restrictions were placed on the types of adult education courses that could be chosen/ individuals had full autonomy. 90% of participants used their voucher for broadly market related courses: 40% were directly job-related, 28% were foreign language courses, and 21% were IT courses. Only one in ten were leisure courses.

Looking at training choices in the French CPF up to 2018, Perez and Vourc'h (2020) found that some employees (just under one third) used their CPF to fund work-related English courses.⁴²¹ Training in transport, handling and storage (11%) was the next most frequently identified courses followed by IT training (7%) and undertaking skills assessments. The training choices of jobseekers included skills assessments and validation; starting-up a business; and materials handling trucks. Jobseekers were more likely to undertake diploma-based training programmes whilst employees were more likely to follow unaccredited training courses. Looking at data after the 2019 reform, the share of languages (mostly English) has however decreased to 12.5% of all learning activities (Annex 14).

Analysing the training choices of the low-skilled Dutch voucher recipients who equally enjoyed full autonomy, Hidalgo et al. (2014) find that the treated group was significantly less likely to take a course to improve their current job tasks, and more likely to take a course to improve their conditions in the labor market in general or to change sectors.

Taken together, the evidence suggests that if people are given more freedom of choice, most will choose courses that are labour market relevant, but put more emphasis on more general/transversal skills and personal professional development.

Impacts of autonomy on labour market outcomes: A further question is whether these more general/transversal types of training “pay off” on the labour market/ translate into better wage and employment prospects. Hence the importance of analysing freedom of choice not only with respect

⁴²⁰ Perez-Johnson et al. (2011), [Improving the Effectiveness of Individual Training Accounts: Long-Term Findings from an Experimental Evaluation of Three Service Delivery Models](#).

⁴²¹ Perez and Vourc'h (2020), [Individualising training access schemes: France – the Compte Personnel de Formation \(Personal Training Account – CPF\)](#). OECD Social, Employment and Migration Working Papers No. 245.

to the types of trainings undertaken in descriptive terms, but also in connection to any differentials in the labour market outcomes generated by them. Experimental evidence is limited, two relevant examples exist.

First, counterfactual evaluations of the Hartz reform in Germany analyze the effect of the reform's moving away from a supply/PES-led training offer for the unemployed to a voucher system with increased freedom of choice (see Rinne et al. (2013)⁴²² and Doerr and Stirttmatter (2017)⁴²³). Findings suggest that freedom of choice tends to increase employment chances and earnings in the medium and long term. This is evident already in the short to medium term in Rinne et al. (2013), where increased freedom of choice appears to increase employment chances between 6 and 15 months of the voucher's assignment by approximately 7ppts. Positive effects are only found in the long term (after three years and until seven years) in Doerr and Stirttmatter (2017), who find small but positive effects on both earnings and employment chances.

Second, a randomised control trial in the US on the Individual Training Accounts scheme offers an in-depth comparative assessment of three alternative delivery modes, at different levels of freedom of choice for the individuals (see Perez-Johnson, Moore and Santilliano (2011)).⁴²⁴ When comparing the standard model of providing individual training entitlement through the "guided choice" to the "maximum choice" model (the latter features hardly any guidance, only initial orientation), the authors find slightly higher earnings and larger shares of individuals being employed in occupations they had trained for in the maximum choice model.

In conclusion, there appears to be no evidence that increasing freedom of choice affects learning behaviour in a way that negatively influences the labour market outcomes for the individuals. The available evidence suggests that effects of autonomy on earnings and employment prospects are either neutral or slightly positive, especially in the medium to long term, irrespective of a modest shift towards more general/transversal types of training. This is consistent with the finding of a growing importance of transversal skills on the labour market (Annex 10).

2. Evidence on the costs of providing training entitlements

Evidence on the direct costs of training entitlements: A first question is how much it will cost funders of training entitlements to fund an hour of training for a recipient of training entitlements. Looking at EU-level Simplified Cost Options (SCOs) for reimbursement under the ESF calculated on the basis of data from the CVTS on training costs incurred by employers. Median costs per training hour are estimated to be €21.88 on average for EU-27 (though with large differences across Member States, ranging between €0.27 in RO to €58.02 in SE).

By contrast, the average hourly cost on training funded under the French CPF is significantly lower, around €15. A first explanation of the difference is that the training SCO includes travelling and subsistence costs which are not covered by CPF training entitlements. A second explanation concerns

⁴²² Rinne et al. (2013) [Vouchers and caseworkers in training programs for the unemployed](#). *Empirical Economics*

⁴²³ Doerr and Stirttmatter (2017), [Assignment Mechanisms, Selection Criteria, and the Effectiveness of Training Programs](#), No 1421, Economics Working Paper Series, University of St. Gallen, School of Economics and Political Science

⁴²⁴ Perez-Johnson, Moore & Santilliano (2011): [Improving the Effectiveness of Individual Training Accounts: Long-Term Findings from an Experimental Evaluation of Three Service Delivery Models](#), Final Report, Mathematica Policy Research.

the types of training chosen: about 30% of training courses available under the CPF are offered remotely/online, likely reducing average costs.⁴²⁵

Evidence on the indirect/ administrative costs of training entitlements: In addition to the direct costs of training entitlements, one-off and recurrent indirect/administrative costs will be incurred for the set up and operation of a training entitlement scheme. One-off costs might comprise the design and set-up of the IT infrastructure (including online registries and tools to allow for the effective search of training opportunities), training of the personnel, the development of the policy and related procedural arrangements, scientific advice, evaluation.

Recurring costs might include the cost of personnel involved in the processing of the applications and the provision of guidance (which may be compulsory for individuals who want to mobilise their entitlements), interaction with training providers and other relevant stakeholders, ongoing monitoring, ongoing IT and policy developments. Also the set-up of the registry of eligible opportunities is included in these costs. For both one-off and recurrent costs, economies of scale are expected, e.g. a one-off cost of an IT system for which each additional participant will not raise the cost by the same amount, but also certain recurrent activities (e.g. monitoring, training of personnel, evaluation procedures etc.) that are likely to become more efficient for each additional participant.

The details of such costs inevitably depend on the framework currently in place in a Member State, and the different existing administrative arrangements thereof. However, some insights can be drawn based on current or past training entitlement schemes that allow identifying some benchmark delivery costs for training entitlements. Unfortunately, such costs are seldomly presented in detail. However, the following four sources allow for an estimation of administrative costs:

- The education Bonus (BIP or Bildungsprämie) Programme in DE and related evaluation⁴²⁶
- The 2000-02's ILA in England and related review from the Parliament
- Evidence from the French CPF (see Annex 14)
- The new STAP scheme to be introduced in the Netherlands in 2022, but currently under development (see Annex 13, case study 5).

These schemes differ on several dimensions. The most notable for a comparative assessment and in order to identify a range of proportions to estimate administrative costs are:

- *The size of the target group:* the number of beneficiaries is largest in the French CPF (as of early 2021, around 15 million accounts created), followed by the ILA in England (around 2.6 million accounts created over 2000-2002) and, at a large distance, the small and targeted educational bonus in Germany (less than 25 thousand annual participants). For the STAP, 200,000 beneficiaries are estimated per annum based on an entitlement of €1 000 per person.
- *The value of entitlements:* STAP will be largest, followed by the French CPF (either €500 or 800), the German educational Bonus (between €340-380) and the UK ILA (\approx €200).
- *The conditions for mobilising entitlements:* The German educational Bonus requires an in-person meeting with a counsellor, while the Dutch STAP, French CPF and UK ILA will/do/did not.

⁴²⁵ See Annex 14 and PPMI (2021): [‘Off-the-shelf’ solutions for post-2020: A study complementing the ESF+ impact assessment / Ad Hoc Report on feasibility of ‘off-the-shelf’ tools for Individual Learning Accounts.](#)

⁴²⁶ Kantar/FBB/IAW (2019), *Evaluation des Bundesprogramms Bildungsprämie (BIP)*.

- *The running time of the scheme:* the CPF is the scheme running for the longest time (around 7 years, despite several reforms and subsequent updates), followed by the German BIP (5 years) and the English ILA (two years before being discontinued). The STAP has an initial budget commitment for 5 years.
- *The type of support:* the CPF entails a personal account. In the case of the educational bonus and STAP, training entitlements do not accumulate over time.

Table A11.3 provides a summary of the identified administrative costs, and puts them in relation to the direct spending on training entitlements. Despite some uncertainties in the estimations due to lack of precise figures on the administrative costs, the available data is suggestive of significant economies of scales: administrative costs appear to decrease in the size of target group, entitlement value and running time of the scheme. Moreover, scale seems to be more important than potentially higher costs due to the existence of personal accounts.

The STAP scheme in the Netherlands provides particularly useful insights as such costs are currently very much the focus of the planners of the scheme. The estimated recurrent administrative costs for running the STAP scheme is €21.5 million per year for managing €200 million of training costs (or 10.75% of the cost of training purchased). These administrative costs include €16.9 million staff costs (for 160 FTE jobs for a new established unit within the implementing agency UWV), €0.7 million housing costs, €3.9 million maintenance costs for the online platform, and €70 thousand maintenance costs for the education register. These structural costs relate to running the client contact centres, enforcement, implementing procedures, maintenance of online portal, education register etc. The total one-off costs for setting up the scheme is estimated at €20.7 million. See the NL case study in Annex 13 for further details.

The CPF has a three-year goal and performance contract (2020-2022) with a budget of €100 million. This budget includes the development of the CPF App, the website, the online portal, the management of the portal, the search engine etc.

Table A11.3: Overview of administrative cost for training entitlement schemes

Name of the scheme	Type	No of beneficiaries /individual trainings purchased	Running time	Value of the training entitlement	Value of training purchased	Total adm costs as a share of training purchased	Recurrent adm costs as a share of training purchased
French CPF	Broad scope	≈ 3.5 million	≈ 7 years	€500-800, yearly (avg. value of training purchased over last 18 months ≈ €2,400)	≈ €2.33 billion over the last 18 months ⁴²⁷	≈ 2% ⁴²⁸ €100 mil over 3 years (recurring)	N.a.
English ILA	Broad scope	≈ 2 million	≈ 2 years	≈ €200	≈ £235 mil	≈ 16% ⁴²⁹	≈ 10% ⁴³⁰
German BIP	Targeted ⁴³¹	<25 thousand per year	6 years	€340-380	€34.5 mil	≈ 54% ⁴³²	≈ 20% ⁴³³

⁴²⁷ Monthly and cumulative purchases through Moncompteformation, from 12/2019 to 5/2021.

⁴²⁸ The estimate is calculated assuming a total value of training for 36 months that slightly more than double that of the last 18 months, which showed a rapidly increasing trend in expenditure. ⁴²⁹ This is calculated as total cost paid to the implementing body Capita (37.6 million pounds) over the total training incentives (235.1 million pounds) in 2000-02. Capita was the entity in charge of the design and implementation of the scheme. Source: <https://publications.parliament.uk/pa/cm200203/cmselect/cmpubacc/544/54403.htm>.

⁴²⁹ This is calculated as total cost paid to the implementing body Capita (37.6 million pounds) over the total training incentives (235.1 million pounds) in 2000-02. Capita was the entity in charge of the design and implementation of the scheme. Source: <https://publications.parliament.uk/pa/cm200203/cmselect/cmpubacc/544/54403.htm>.

⁴³⁰ This is calculated based on the 2001 (second year) only, given the first year was likely dominated by set up costs and the third by the closing of the scheme (with much less trainings purchased).

⁴³¹ Income-tested, for low income individuals, 50% cost-sharing up to €500.

⁴³² These include: the cost of administration of the leading entity (BVA), Scientific monitoring (BIBB), the IT system, the Hotline and a Final evaluation. Counselling services and related training for counsellors are excluded from the estimate, as they cover a different policy measure.

⁴³³ Average cost for the “variable administrative costs”, as identified by the authors of Kantar/FBB/IAW (2019), Evaluation des Bundesprogramms Bildungsprämie (BIP). Author’s calculations based on the annual variable cost weighted by the number of vouchers used every year.

Dutch STAP	Broad scope	Target of 200,000 p.a but based on €1,000 per entitlement (the actual number of beneficiariers expected to be higher, as not all applicants will request the maximum €1,000)	Initial budget commitment for 5 years (starting 1 March 2022).	As requested, up to a maximum of €1,000.	€200 million p.a	One-off cost of €20.7 million (\approx 10.35% of training entitlement budget for one year); plus annual running costs of €21.5 million ⁴³⁴	\approx 10.75% ⁴³⁵
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⁴³⁴ The total incidental costs for setting up the STAP scheme is estimated at €20.7 million. This includes €18.2 million for setting up the administration of the scheme by UWV (including the €12.12 million for setting up the online platform for the STAP budget) and €2.5 million for setting up the training register (by DUO).

⁴³⁵ The total annual recurrent cost is estimated at €21.5 million. This includes €21.5 million for running the scheme (by UWV) and €70 thousand for maintenance of the training register (by DUO). The maintenance costs of the training register will gradually decrease to €35 thousand a year, after 2 years of implementation.

ANNEX 12: QUANTIFYING IMPACTS

This Annex provides quantitative estimates of the impacts of the policy packages introduced in Section 5.4. Since key parameters of the policy measures are left to Member States, the approach taken is to estimate impacts for different implementation scenarios concerning plausible priority target groups selected on the basis of the problem analysis in Section 2, for parameters chosen on the basis of the evidence review in Annexes 10 and 11 (also see Annex 4 for a summary of the analytical approach). This Annex consists of three parts:

Annex 12A – Estimates the expected increase in training participation resulting for the different policy packages and implementation scenarios, driving the estimates of further impacts in parts B and C. This part of the Annex shows how the impact on participation rates is estimated, which assumptions are made regarding deadweight losses, and how impacts could vary across Member States and for different groups.

Annex 12B- Presents the results of the cost-benefit analysis, comparing the costs and benefits for the different policy packages and implementation scenarios.

Annex 12C – Estimates of the long-run and general equilibrium effects that are expected to derive from the policy packages, based on macroeconomic modelling.

The estimation of participation rates and impacts is dependent upon the particular policy package and implementation scenario under investigation. The following policy package-implementation scenario combinations are considered- for consistency with the adult learning participation data available from the AES and used for EU-level benchmarking, always for the age range of 25-64 years:

Package A – Vouchers for priority groups (50 hours of training)

A1- training entitlements for the low qualified

A2 – training entitlements for the economically inactive

A3 – training entitlements for the unemployed

A4 – training entitlements for employees of SMEs (less than 250 employees)

A5 – training entitlements for atypical workers (all workers who are not permanent employees)

Package B1 – Training entitlements for all adults (30 hours of training)

B1 – training entitlements for all adults

Package B2 – training voucher to all adults, but with an enhanced package for certain priority groups (30 hours of training delivered to all adults, but priority groups provided with an additional 20 hours)

B2.1 training entitlements for all adults, enhanced for the low qualified

B2.2 training entitlements for all adults, enhanced for the economically inactive

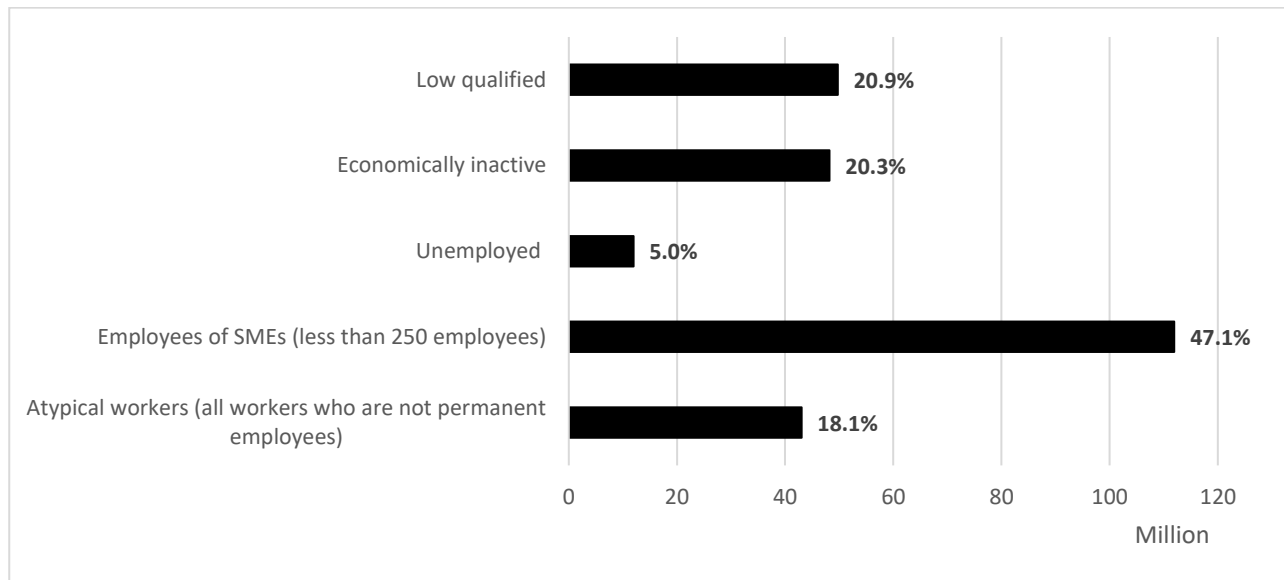
B2.3 training entitlements for all adults, enhanced for the unemployed

B2.4 training entitlements for all adults, enhanced for employees of SMEs

B2.5 training entitlements for all adults, enhanced for atypical workers (all workers who are not permanent employees)

Figure 12.1 below provides an overview of the predicted 2030 sizes of the different target group populations (25-64 years old) at the EU-27 level, in absolute and relative values.

Figure 12.1– Predicted EU-27 population aged 25-64 in 2030 by target group (absolute values and as a % of the overall 25-64 population)



Source: Authors' elaboration based on Eurostat data (cf. Section A.5 and Annex 8.3).

A. IMPACT ON ADULT LEARNING PARTICIPATION

1. Estimating the impact on participation rates: a summary of the approach

The first step in the methodology is to estimate the impact of a training entitlement intervention on participation in training. The steps taken to produce the estimates were as follows:

- Identify the size of the target groups, in other words the total number of people in the population, in employment, unemployed, inactive, low-qualified, in atypical employment, working in small and medium sized enterprises (i.e. with less than 250 employees);
- For each target group estimate the extent to which people will be likely to redeem the training entitlement and engage in training (without considering possible deadweight losses). The proportions are derived from the existing evidence (reviewed in Annex 11);
- Once the impact on take-up has been estimated, an adjustment is made for deadweight loss so as to derive an estimate of the extent to which training is being delivered which would not otherwise have taken place. Two estimates are derived:
 - The extent to which people entered training due to the policy packages who would not otherwise have been in any training at all (*relevant for impacts on annual participation rates*);
 - In addition to the above estimate, the extent to which more frequent or longer trainings took place due to the policy packages (*relevant for the estimation of broader impacts beyond yearly figures of participation in training in Annexes 12B and 12C*).

Because the estimates of net and gross impacts are initially derived from common parameters for all EU Member States (cf. Annex 11), there is a need to make an adjustment to take into account that some Member States have much higher participation rates than others. In Member States with low levels of participation under the baseline scenario, deadweight loss is expected to be lower, as there is less scope for displacing already existing training. This is also in line with evidence from the

literature, which points to lower deadweight losses for individuals with lower participation rates (see Annex 11).

Finally, estimates are produced of the number of people who are likely to be in training in 2030 under each of the policy packages. They are derived by looking at the impact on the different groups included in each of the policy packages. The estimates of increases in participation in training are produced for 2030, and compared to the predicted changes in adult learning participation until 2030 under the baseline scenario (cf. Annex 8.3).

2. Identification of plausible take up rates for individual training entitlements

The first step was to identify a benchmark estimate (and a range of plausible variation) for the rate of the take-up (or take up) of a policy intervention providing individuals with training entitlements. As detailed in Annex 11, disaggregated yearly data on schemes providing individual training entitlements to sufficiently broad target groups is scarce. One notable exception is a Swiss experiment (randomised control trial) reviewed in the scientific literature (see e.g. Schwerdt et al. 2012).⁴³⁶ In Annex 11, take-up rates from such experiment are compared with those from other existing schemes for which information is available, including the French CPF and the SkillsFuture Credits in Singapore. An analysis was done controlling for relevant features of the schemes (e.g. cost-sharing, expiration period, target group, value of the training entitlement, accumulation etc.) and of the target groups. The analysis concludes that the Swiss experiment represents a credible middle ground scenario for the take up rate of an individual training entitlement that is similar to what is outlined in the policy packages. It also indicates a possible range of variation (described below in section 8) and some expected differences in take up by educational attainment level and value of the training entitlement. These coefficients are summarised below in Table 12A.2, together with the assumptions concerning deadweight.

3. The treatment of deadweight loss

As noted above, one wants to estimate the increase in training (or additionality) which takes place as a consequence of the intervention (*i.e. the training that would not have taken place without the intervention*). From any observed increase in training following the intervention there is a need to control for deadweight (*in this case the volume of training which would have taken place in any case without the intervention*). In particular, it is useful to distinguish between four different ways in which the action by an adult who makes use of her/his training entitlements and participates in training translates into additional training. These are summarized in Table 12A.1 (*introduced in Annex 11*).

⁴³⁶ Schwerdt et al. (2012), [The impact of an adult education voucher program: Evidence from a randomized field experiment](#), Journal of Public Economics.

Table 12A.1: Classification of deadweight vs. additionality for an adult using training entitlements

I	II	III	IV
I would not otherwise have participated in training- <i>and on top, training entitlements crowd-in additional private resources or encourage me to participate more in the future</i>	I would not otherwise have participated in training	I would have participated in training anyway- <i>but to less a degree/at lower intensity</i>	I would have participated in training- <i>and to the same extent I do now</i>
Negative deadweight/ resources crowded in: <i>Take-up of training entitlements underestimates net increase in training participation</i>	No deadweight: <i>Take-up of training entitlements corresponds to net increase in training participation & economic additionality</i>	Partial deadweight: <i>economic additionality resulting from the higher training intensity</i>	Total deadweight: <i>no economic additionality</i>
Increase in the amount of training undertaken			
		Deadweight in the sense that the number of yearly participants in at least one training (as measured in the adult learning participation rate) does not increase	

As discussed in more detail in Annex 11, this conceptual overview – which is of great importance in assessing the costs and the benefits of the intervention – was not systematically adopted in the literature due to issues linked to the experimental design of the studies. In particular, the literature typically only provides estimates comparing a response corresponding to column II (*no deadweight/full additionality*) to a response corresponding to column IV (*total deadweight/no additionality*). This is because data on the duration/intensity of training, private co-funding or future training participation, which would allow for a more nuanced assessment, is often not available.

In practical terms, this means that a deadweight loss estimate of 30% (as used below) means that of 100 additional adult learners making use of their training entitlements during a year, 7 of them would not otherwise have participated in learning in that year and 3 would have participated in some form of learning anyway. This estimate however overstates deadweight loss/ understates the additional training induced by the scheme if there is crowding-in of private resources (column I) and/or an impact on training intensity (column III). There is strong evidence that both factors matter in practice (Annex 11). This points to the need of a more nuanced treatment of deadweight loss when assessing the costs and benefits of training than the one implied by the headline deadweight loss estimates provided in the literature.

The approach taken is hence the following, summarised in Table 12A.2: for the estimation of the impacts of the policy packages on adult learning participation rates in this Annex, a “middle ground” deadweight loss estimate is taken from the literature reviewed in Annex 11. For the estimation of broader impacts in Annexes 12B and 12C, this deadweight estimate is reduced somewhat on the basis of evidence that even among those who would have also participated in training in the absence of the scheme, the scheme resulted in an increase in training intensity. Note that this only partially addresses the conceptual issues for measuring additionality highlighted by Table 12A.1. To provide a range of

plausible outcomes in view of the evidence, all Sections in this Annex include sensitivity checks on the key parameters in addition to the main/”middle ground” estimate.

Table 12A.2: Estimates used to derive estimates of the impact on participation levels and broader impacts

	Middle Ground
Gross impact (i.e. the take up rate of training entitlements, regardless of any deadweight)	18.4 % for the general population and 9.5% for the low qualified (Schwerdt et al. 2012). ⁴³⁷ All the other target groups use the average rate in absence of more granular and consistent info on heterogeneity. This value rises to 22% (13.1% for the low qualified) for a 50-hour entitlement. See the discussion in Annex 12A.7 and the evidence review in Annex 11.
Deadweight- for calculating impacts on adult learning participation rates in Annex 12A	30% (Schwerdt et al. 2012)
Deadweight- for assessing broader impacts of increased participation in Annexes 12B and 12C	22.8% (Schwerdt et al. 2012 corrected for the share of people who trained more as per Messer and Wolter 2009). See Annex 11.

4. Accounting for differences in Member State’s participation levels

The discussion above clarifies that, to identify the net increase in participation in training that is caused by the training entitlement (the true effect the policy), an estimate is required of the deadweight associated with it. This estimate needs to be derived from a randomised control trial (RCT) so that it is possible to observe the behaviour of those who were provided with a training entitlement (the treatment group) and those who were not (the control group) while ensuring that like is being compared with like. This is necessary as the motivation to learn might vary substantially across individuals irrespective of any background feature one can observe and measure, making it impossible to account for self-selection in training based on observable characteristics of the participants. However, there are relatively few RCTs which examine training entitlements or vouchers. Schwerdt et al. (2012) is one of the few RCTs which has been published in a peer reviewed journal, and the only one where an experiment is done with a voucher that is offered to a broad target group (i.e. a randomly selected sample of the whole population aged 20-60).⁴³⁸ Hence, the impact assessment relies on this paper as a source of information on deadweight. As Switzerland has a relatively high training participation rate, there is a need to adjust the estimates provided by Schwerdt et al. (2012) so that deadweight estimates better reflect the conditions in the EU Member States.

Participation rates vary substantially also between EU Member States. It seems reasonable to assume that where participation rates are relatively high, this might limit the scope for further net increases in participation to take place (or at least increases not subject to deadweight loss). For instance,

⁴³⁷ Schwerdt, G. et al. (2012): [The impact of an adult education voucher program: Evidence from a randomized field experiment](#), Journal of Public Economics.

⁴³⁸ Schwerdt, G. et al. (2012): [The impact of an adult education voucher program: Evidence from a randomized field experiment](#), Journal of Public Economics.

arguably there is more scope to increase rates in Romania where the AES reported that 6 per cent of individuals had trained in the last 12 months than in, say, Sweden where the corresponding rate was 59 per cent. This is also in line with evidence from the literature, which points to lower deadweight losses for groups of individuals with lower participation rates (see Annex 11).

To correct for this, Member State-specific deadweight losses have been estimated as follows. For a Member State with the same participation rate as Switzerland, we assume that the level of deadweight will be the same as in Schwerdt et al. (2012) – i.e. 30 per cent. For countries with different participation rates, deadweight losses are proportionally adjusted. To do this, the gross participation rate in country x is divided by that for Switzerland (62 per cent) and multiplied by the deadweight factor (i.e. 30 per cent). For example, if the case of Romania is taken, the calculation is:

- 5.9 (the rate for Romania) / 61.9 (the rate for Switzerland) * 0.3 (the deadweight reported in the Swiss study). This gives an adjusted estimate for Romania of 0.03 , whereas that for Sweden is 0.27 .

In essence, one is saying that the deadweight in Romania is expected to be proportionately lower in Switzerland to the same extent that its adult learning participation rate is lower, to account for the lower risk of crowding out private training investments.

5. Producing estimates for 2030

Estimates are produced relative to the baseline scenario and for 2030 (see Annex 8.3). Labour Force Survey data have been weighted by the projected change in population in the EU until 2030.

6. Estimating the impact of additional training entitlements on the take up rate

As part of the analysis an indication is required about what might happen if the amount of training entitlements/ the duration of training that can be purchased with them is increased for priority target groups. The evidence from the Swiss voucher scheme indicates that if the value of a voucher is increased from a low to middle value (i.e. from approx. €160 to approx. €600 in the Swiss case), this can have a substantial increase on participation rates.⁴³⁹ But if the value is increased from a middle to high value (i.e. approx. €600 to approx. €1 200), the resulting increase is smaller.

On the basis of the evidence review from Annex 11, for our “middle ground” scenario we assume a take up rate of 18.4 per cent within a year for training entitlements worth 30 hours of training (corresponding to approx. €381 on average across EU Member States⁴⁴⁰), which we assume to increase slightly to 22 per cent for training entitlements worth 50 hours (approx. €631 on average across EU Member States). Due to evidence of a lower take-up of the low qualified, the corresponding assumed take-up rates among the low-qualified are 9.5 and 13.1%, respectively (Annex 11).

7. Estimated impacts on participation rates

Based on the estimation process described above, Table 12A.3 provides an estimate of the additional number of people likely to be in training – controlling for deadweight – in the EU-27 and each Member State by 2030 for each of the policy scenarios outlined in the previous section.

⁴³⁹ Messer, D. and Wolter, S. (2009): [Money matters: evidence from a large-scale Randomized field experiment with vouchers for adult training.](#)

⁴⁴⁰ The amounts required are country-specific as they depend on national training costs. See Annex 12B for a discussion of how these have been estimated.

Table 12A.3 shows the potential additional participation in training by Member State and for the EU-27 and for the different packages and sub-packages, a possible 33 million participants under B1 (entire adult population of working age receives an entitlement) representing a gain in participation of 14.1 percentage points (see Table 12A.4).⁴⁴¹ The targeted vouchers deliver lower volumes and marginal gains as would be expected whilst the B2 sub-packages deliver higher volumes and rates than B1 as a result of additional financial incentives for priority groups. As increases depend on the size of the target group, these are comparatively larger for target groups that are overrepresented in a given country. For instance, the large proportion of low qualified (A1) in Italy means that, if targeted, they would raise overall participation levels more than in Finland, where they are underrepresented. Increases are also higher in countries with lower levels of participation, given the smaller estimated deadweight loss.

⁴⁴¹ Note that sub-packages cannot be aggregated given overlaps in the target groups.

Table 12A.3: Net increases in participation in training in ppts and absolute values, by Member State and Policy Package

Policy Packages	A1	A2	A3	A4	A5	B1	B2.1	B2.2	B2.3	B2.4	B2.5	
EU-27	5.8	9.2	2.2	18.2	7.1	33.6	35.0	35.1	34.0	36.6	34.8	Million people
	2.4	3.9	0.9	7.6	3.0	14.1	14.6	14.7	14.2	15.3	14.5	Percentage Points
Belgium	2.4	4.4	0.6	6.0	2.2	13.8	14.4	14.5	13.9	14.8	14.1	
Bulgaria	2.2	4.2	0.8	9.5	2.1	17.0	18.0	17.7	17.2	18.6	17.4	
Czechia	0.8	3.1	0.4	11.0	3.1	15.7	17.4	16.3	15.8	17.5	16.3	
Denmark	1.9	2.7	0.7	7.0	2.2	12.5	13.2	13.0	12.6	13.7	12.9	
Germany	1.6	2.7	0.5	7.7	2.6	13.0	13.9	13.4	13.1	14.3	13.4	
Estonia	1.1	2.8	1.0	9.6	1.4	14.5	15.7	14.9	14.6	16.0	14.7	
Ireland	1.6	3.9	0.6	6.8	2.7	13.1	14.0	13.7	13.1	14.2	13.5	
Greece	2.7	5.0	2.4	7.7	3.7	16.5	17.2	17.4	16.9	17.8	17.1	
Spain	4.4	3.7	2.0	7.8	1.9	14.9	14.5	15.5	15.2	16.1	15.2	
France	2.1	4.0	0.9	6.5	3.1	12.8	13.4	13.4	12.9	13.8	13.3	
Croatia	1.7	5.4	1.0	9.2	3.3	15.3	16.4	16.2	15.4	16.8	15.8	
Italy	4.4	5.6	1.1	7.3	3.3	14.5	14.1	15.4	14.6	15.6	15.0	
Cyprus	1.9	3.3	1.0	8.6	3.2	13.2	14.0	13.7	13.4	14.6	13.7	
Latvia	1.0	2.8	1.2	9.3	1.4	13.9	15.2	14.3	14.1	15.4	14.1	
Lithuania	0.6	2.9	1.5	9.4	1.8	15.5	17.2	16.0	15.7	17.0	15.8	
Luxembourg	2.4	3.8	0.7	5.9	1.0	13.4	13.9	14.0	13.5	14.3	13.5	
Hungary	1.4	3.7	0.5	6.7	1.8	12.0	12.8	12.6	12.1	13.1	12.3	
Malta	4.8	3.7	0.5	6.9	3.2	14.6	13.9	15.2	14.7	15.7	15.1	
Netherlands	1.9	2.8	0.3	4.3	3.6	11.7	12.3	12.1	11.7	12.4	12.3	
Austria	1.6	3.4	0.6	6.8	2.1	12.0	12.8	12.5	12.1	13.1	12.3	
Poland	0.9	4.7	0.4	8.3	5.1	16.0	17.6	16.7	16.0	17.3	16.8	
Portugal	4.9	3.3	0.9	8.7	4.5	14.0	13.2	14.5	14.1	15.4	14.7	
Romania	2.6	5.0	0.7	10.3	2.8	17.7	18.5	18.5	17.8	19.4	18.2	
Slovenia	1.2	3.5	0.7	5.7	2.9	13.7	14.9	14.3	13.8	14.7	14.2	
Slovakia	0.9	4.1	1.0	8.3	2.7	13.4	14.8	14.1	13.6	14.8	13.9	
Finland	0.9	2.5	0.9	7.9	3.2	12.4	13.6	12.8	12.6	13.7	12.9	
Sweden	1.3	1.6	1.0	7.7	2.9	11.6	12.4	11.8	11.7	12.8	12.0	

8. Sensitivity checks

Given that there is a degree of uncertainty around the level of (i) take-up rates and (ii) deadweight loss, there is an interest in assessing their implications– i.e. to test the sensitivity of the overall of additionality to the assumptions which are made about take-up rates and deadweight.

To this end, it was decided to estimate the impacts of relatively high (pessimistic) and low (optimistic) levels of deadweight and take up rates. The relatively high and low estimates were obtained from looking at the variation reported around the estimates contained in the scientific literature as discussed in Annex 11 and recalled here below.

Table 12A.4: Sensitivity checks

Sensitivity check	Choice of parameters
Deadweight (high)	60% , scaled down by target group and MS as per the procedure described in section 4. This value is drawn from Hidalgo et al. (2014), which suggest that deadweight can be as high as 60 per cent. ⁴⁴²
Deadweight loss (low)	0% There is evidence from the CPF in France (Annex 14) and Schwerdt et al. (2012) that the provision of training entitlements stimulates additional private investment. There is also evidence of significant impacts of training entitlements on future training intentions from both Schwerdt et al. (2012) and Hidalgo et al. (2014). In order to take into account these impacts, a sensitivity check is considered where they offset deadweight losses and reduce them to 0.
High take-up rate	30%, scaled by target group and value of the voucher following the same approach of the main estimates
Low take-up rate	10%, scaled by target group and value of the voucher following the same approach of the main estimates

The data reveals that if different levels of take up or deadweight arise then the impact on levels of participation can be significant. The baseline data refers to the participation level which is likely to arise in absence of any intervention.

The main estimate is based as in Section 7 on the the level of take-up and deadweight in the Swiss experiment reported by Schwerdt et al (2012). This clarifies that policy packages which offer individual training entitlements to the whole population (B1 and B2.x) would suffice to reach the objective of at least 60% of the population in training by 2030.

The following rows refer to differing levels of take-up and deadweight as explained above. They show that even in presence of high deadweight loss or low take-up rates, packages B would be expected to increase learning participation significantly, with average net increases in training participation of around nine percentage points vis-à-vis the baseline. Levels in 2030 would be expected to stay slightly below, but come close to, the 60% target for EU-27.

⁴⁴² Hidalgo, D., Oosterbeek, H. and Webbink, D. (2014): [The Impact of Training Vouchers on Low Skilled Workers](#). *Labour Economics*.

Table 12A.5: Overall participation rates at the EU-27 by policy package and target group - baseline, main estimate and sensitivity checks

Policy Packages	Package ID	A1	A2	A3	A4	A5	B1	B2.1	B2.2	B2.3	B2.4	B2.5
	Focus of the package	Low qualified	Inactive	Unempl	Workers in SMEs	Workers not in permanent empl	General population	General + low qualified	General + Inactive	General + Unempl.	General + Workers in SMEs	General + not in perm empl.
Baseline												
Predicted participation rate (baseline)	Target group	23.4	27.7	33.8	54.6	52.9	48.6	23.4	27.7	33.8	54.6	52.9
	Whole population	48.6	48.6	48.6	48.6	48.6		48.6	48.6	48.6	48.6	48.6
Main estimate												
Middle ground take-up and DWL	Target group	35.0	46.7	52.2	70.8	69.3	62.7	35.0	46.7	52.2	70.8	69.3
	Whole population	51.0	52.5	49.5	56.2	51.6		63.2	63.3	62.8	63.9	63.2
Sensitivity checks												
Low (0%) deadweight loss	Target group	36.5	52.0	55.8	76.6	74.9	67.0	36.5	52.0	55.8	76.6	74.9
	Whole population	51.4	53.1	49.7	59.0	52.6		67.8	67.8	67.2	68.7	67.7
High (60%) deadweight loss	Target group	33.4	43.5	48.2	64.3	63.0	57.9	33.4	43.5	48.2	64.3	63.0
	Whole population	50.7	51.8	49.3	53.2	50.4		58.2	58.4	58.0	58.6	58.2
High take-up rate	Target group	43.4	65.0	68.8	89.6	87.9	67.0	43.4	65.0	68.8	89.6	87.9
	Whole population	52.8	55.7	50.4	65.1	55.0		79.7	79.6	78.9	81.0	79.5
Low take-up rate	Target group	30.4	42.0	45.8	66.6	64.9	58.6	30.4	42.0	45.8	66.6	64.9
	Whole population	50.1	51.1	49.2	54.3	50.8		59.0	59.0	58.7	59.6	59.0

9. Estimates on the effects on training participation gaps across countries

Table 12A.6: Cross-MS comparison of changes vs baseline participation rates, by group of country

	Baseline 2030 participation rates	A1	A2	A3	A4	A5	B1	B2.1	B2.2	B2.3	B2.4	B2.5
Countries with high participation	67.8	69.4	70.9	68.5	74.7	70.5	80.2	81.0	80.6	80.3	81.3	80.6
Countries with average participation	51.4	53.6	55.1	52.3	59.1	53.9	65.2	65.8	65.8	65.3	66.4	65.6
Countries with low participation	27.8	30.1	32.0	28.9	36.7	30.8	43.7	44.5	44.4	43.9	45.2	44.2
Gap (high - low)	40.0	39.3	38.9	39.6	37.9	39.7	36.4	36.4	36.2	36.4	36.1	36.4
Reduction in gap (ppts)		0.70	1.16	0.40	2.07	0.31	3.58	3.59	3.77	3.64	3.92	3.63
Reduction in gap (%)		1.8%	2.9%	1.0%	5.2%	0.8%	8.9%	9.0%	9.4%	9.1%	9.8%	9.1%
Country with highest values (SE)	76.6	77.9	78.2	77.6	84.3	79.5	88.1	89.0	88.4	88.3	89.4	88.6
Country with lowest values (RO)	7.5	10.1	12.5	8.2	17.9	10.3	25.3	26.1	26.1	25.4	27.0	25.7

Table 12A.6 highlights the likely variation in the cross-MS gaps. The average predicted participation rate of the countries having the 9 highest participation rates in 2016 (and 2030) is compared with that of the 9 countries with the lowest participation rates in the same years. This allows an appraisal of the comparative effect of the different policy packages in terms of the evolution of the gaps across Member States.

As apparent from the values highlighted, all policy packages contribute to reducing the gaps in participation rates between countries. However, there is significant variation across the policy options. The largest reduction in gaps is observed for the policy packages B1 and B2, with a relative reduction of around 9%. Policy packages A1-5 ensure smaller reductions in gaps, given the smaller target groups.

The averages impacts across country groups mask stronger predicted impacts on participation gaps between specific Member States: under package B.1, the increase in adult learning could for instance range from 11.5 percentage points in the Member State with the highest participation rate under the baseline scenario (SE) to 17.8 percentage points in the Member State with the lowest (RO).

10. Estimates on the effects on training participation gaps across target groups

Table 12A.7: Comparison of changes vs baseline participation rates, absolute values and gaps, by target group and policy package

Target group	Indicator	Baseline 2030 participation rates	A1	A2	A3	A4	A5	B1	B2.1	B2.2	B2.3	B2.4	B2.5
Low qualified	Abs. Value (participation rate)	23.4	35.0	23.4	23.4	23.4	23.4	31.8	35.0	31.8	31.8	31.8	31.8
	Gap with overall pop (ppts)	25.2	16.0	29.1	26.1	32.8	28.2	30.9	28.2	31.5	31.0	32.1	31.3
	Gap with overall pop (% variation)		-36%	15%	4%	30%	12%	22%	12%	25%	23%	27%	24%
Inactive	Abs. Value	27.7	27.7	46.7	27.7	27.7	27.7	43.6	43.6	46.7	43.6	43.6	43.6
	Gap with overall pop (ppts)	20.9	23.4	8.0	22.4	33.0	25.6	19.1	19.6	16.6	19.2	20.3	19.5
	Gap with overall pop (% variation)		12%	-62%	7%	58%	22%	-9%	-6%	-21%	-8%	-3%	-7%
Unemployed	Abs. Value	33.8	33.8	33.8	52.2	33.8	33.8	49.2	49.2	49.2	52.2	49.2	49.2
	Gap with overall pop (ppts)	14.8	17.2	21.0	-2.1	26.9	19.5	13.5	14.1	14.1	10.6	14.7	14.0
	Gap with overall pop (% variation)		16%	41%	-114%	82%	32%	-9%	-5%	-5%	-28%	-1%	-6%
Working in SMEs	Abs. Value	54.6				70.8						70.8	
	Gap with large companies (ppts)	17.0				0.83						1.33	
	Gap with large companies (% variation)					-95%						-25%	
Workers not in permanent empl.	Abs. Value	52.9					69.3						69.3
	Gap with permanent employees (ppts)	6.1					-10.3						13.8
	Gap with permanent employees (% variation)						-269%						-54%

Source: authors' elaboration.

Another dimension of interest is the evolution of gaps in training participation across target groups. Table 12A.7 investigates this issue by displaying the absolute and relative changes in the gaps for the five target groups discussed and across all policy packages.

The values presented suggest the following key findings:

- if the focus is on the low qualified, due to their typically low take-up rates, then only by targeting them in A.1 it is possible to reduce their participation gap relative to other adults. This, of course, holds for an average hypothetical scenario that does not consider specific outreach strategies put in place to encourage their participation;
- for the inactive and unemployed, although the main net gains are generated by the policy packages that target them specifically, also B.1-B.2 are likely to positively influence their participation gaps. This is due to the fact that deadweight loss is on average lower for these target groups;
- whenever a single target group is provided with training entitlements, the related increases in participation raise the average participation rate (for the overall population) thus exacerbating the gaps of any group with lower-than-average participation rates that is not targeted by the same policy;
- when the target of the policy package is workers in SMEs or not in permanent employment, the training entitlements should suffice to significantly reduce (workers in SMEs) or close (workers not in permanent employment) their participation gap vis-à-vis workers in large companies and workers in permanent employment, respectively.

11. Estimated impacts on participation rates for additional target groups

Under both policy packages, it is left to Member States to specify priority target groups for training entitlements, leading to a large number of potential scenarios. This sub-section provides estimates on the impacts on 2030 participation rates of providing a 50-hour training entitlement to three additional groups that are not considered further in the analyses below, but that are plausible priority target groups based on the problem analysis, notably:

- Low and medium qualified: this extends the target group of policy package A1 to the medium qualified, on account for their possible need of specific support as highlighted by the literature on skills polarisation⁴⁴³;
- Individuals aged 45-64, who may suffer from a higher risk of skills obsolescence⁴⁴⁴;
- Workers in occupations with a high risk of automation, and especially Plant and machine operators, workers in Craft and related trades, Skilled Agricultural and Elementary occupations⁴⁴⁵ (which currently participate less in learning, see Annex 6.3)

⁴⁴³ See for instance Cedefop's focus on [skills polarisation](#), stressing that “demand for medium-skilled intermediate occupations is falling, while demand in both high-skilled and low-skilled occupations is rising”.

⁴⁴⁴ See amongst others OECD (2019), [Working Better with Age](#), OECD Publishing. In line with this, as indicated in Annex 12, specific top-ups are granted in the SkillsFuture credit scheme in Singapore to elder individuals.

⁴⁴⁵ ISCO-08, occupations 6, 7, 8 and 9.

Table 12A.8: Effects on 2030 participation in training for three additional target groups under policy package A

Focus of the package		Package A - Low and medium qualified	Package A- Individuals aged 45-64	Package A- Workers in occupations at a high risk of automation
Baseline				
Predicted participation rate (baseline)	Target group	37.1	42.0	33.6
	Whole population	48.6	48.6	48.6
Main Estimate (Middle ground take-up and DWL)				
Net increase in AL participation	Target group	17.4	17.5	18.4
	Whole population	10.6	9.2	4.3
Overall 2030 AL participation rates	Target group	52.8	59.5	52.0
	Whole population	59.8	57.8	53.0

Table 12A.8 above reveals the predicted 2030 participation rates for the three additional target groups of policy package A in terms of baseline values, net (marginal) increases and overall participation rates.

Looking at the baseline values, individuals in the age range 45-64 show the smallest gap from the participation rate of the overall population, but this is still above 6 ppts. Such predicted gap is over 11ppts for the low and medium qualified and stretches until 15 ppts for workers in occupations at a high risk of automation.

The net increases in participation are highest for workers in occupations at a high risk of automation, given a predicted take-up rate in line with the average and lower-than-average deadweight loss. This translates into overall participation rates that would come very close to the population average, closing the gap from 15 ppts to just 1 ppt. However, the impact on the participation rate of the overall population appears modest and not enough to achieve the 60% threshold. This is only due to the comparatively small size of the target group.

For individuals aged 45-64, net increases in adult learning participation remain substantial at 17.5 ppts. The impact on the overall participation rates is significant, driving the population's 2030 participation rate to nearly 58 ppts. In this scenario, the participation rate of the target group would exceed that of the overall population.

For the low and medium qualified, a comparatively low deadweight loss is offset by the modelling assumption of take-up rates which are below average for the low qualified. The net increases in participation rates for the target group remain substantial (17.4 ppts). The net (marginal) impact on the population's 2030 participation rates is very significant too, driving overall participation rates to around 60%. The gap between the population and target group's participation rate would fall from over 11ppts to 7ppts.

B. COST-BENEFIT ANALYSIS OF SHORT TO MEDIUM TERM IMPACTS

This sub-section presents the costs and benefits for different stakeholders that can be expected to result from the policy packages in comparison to the baseline. The cost-benefit analysis (CBA) has been undertaken in accordance with the Commission's Better Regulations Guidelines. It focuses on

those costs and benefits that can be monetised, in order to calculate an overall benefit-cost ratio. The CBA therefore does not take into account the full range of benefits that can be expected to arise from increased participation in training, for example, in terms of increased personal wellbeing and satisfaction. The CBA is based on a number of assumptions, derived from the evidence base in Annexes 10 or 11 or from other evidence, as indicated.

It should be noted that the policy options leave it to Member States to determine how to finance training entitlements. For simplicity, the costs of training entitlements are presented here as falling on public authorities, but in practice Member States might choose to require participating individuals or their employers to provide co-financing.

Moreover, the analysis in this Annex focuses on the quantification of the expected costs and benefits of providing individual training entitlements, in view of the scarcity of quantifiable evidence on the policy measures other than training entitlements in packages A and B. However, evidence on the costs of infrastructure such as registries, personal accounts etc. is considered in the estimates on administrative costs in the calculations below. While no quantified evidence is available on the benefits of paid training leave, the analysis below estimates the costs of time spent in training to allow for a comparison with the expected benefits of training entitlements (Sections 12B.6 and 7 of this Annex). Further expected impacts of the policy measures included in the packages are discussed qualitatively in Section 7, on the basis of the evidence review in Annexes 10 and 11.

1. Costs and benefits for individuals

Costs

As take up of training entitlements is optional, no costs are imposed on individuals. Instead, such opportunity costs are taken into account in the calculation of participation rates. They hence do not feature in the core CBA, but are considered separately in Sections 12B.6 and 7 below.

Whilst Member States might choose to require individuals to co-finance training entitlements (i.e., require individuals to pay a share of training costs out of their own pocket), this is not recommended under the policy packages. For the purposes of the CBA, it is therefore, assumed that schemes do not require individuals to co-finance. Should Member States introduce a co-financing requirement, this would be expected to reduce take up rates.

Benefits

A number of monetary benefits can be expected to arise from the Training entitlement schemes.

First, it can be expected that participation in training will lead to an increase in wages for some employed participants. As noted in the evidence review (Annex 11), the literature suggests it is reasonable to assume that the increase in wages that might arise for employed participants in training will be 1 per cent on average after 30 hours training and thus 1.67 per cent after 50 hours (although it is likely to vary widely across the cohort of participants). As shown in Annex 10, no clear-cut conclusion can be drawn from the literature as to whether the length of training will generate increasing or decreasing returns; estimates varied both in sign and intensity and no clear trend is apparent. For that reason, a “middle-ground” approach is taken, which assumes constant returns between 30 hours and 50 hours. However, the sensitivity of the findings to adjustments of these assumptions is shown in Section 12B.5.

For the purposes of this CBA, it is also assumed that:

- Members of the overall working population earn 100% of average annual net earnings per person on average.
- Low-qualified persons in employment earn 80% of average earnings.⁴⁴⁶ Detailed data are not available on the earnings of low-qualified persons. However, Eurostat notes that 27% of employees with a low education level earn two-thirds or less of the national median gross hourly earnings.⁴⁴⁷
- Non-low-qualified persons in employment earn 125% of average annual net earnings on average. If low-qualified people are assumed to earn less than the average (e.g. 80%), it follows that other workers must earn more than the average. Since Eurostat only provides data at 100%, 125% or more, the figure of 125% is chosen.
- A certain proportion of participants would have participated in training in the absence of the policy packages. The benefits are thus based on net participation rates rather than gross participation rates, i.e. taking deadweight loss into account.

Given the expected net increase in participation in training (i.e. taking into account deadweight loss), the expected increase in wages for different types of employed persons and for each policy package is as presented in the tables below.

NB: the tables only include wage increases for those in employment prior to participation in training. Wage increases for unemployed or inactive people entering employment are considered later.

Participation in training can be expected to generate non-monetary benefits above and beyond the monetary benefits analysed here, for example, in terms of increased skills, confidence and motivation of individuals.

Table 12B.1: Annual wage impacts for persons in employment (EU27)

Target group	Annual net earnings (€)*	Increase in earnings	Average increase in annual earnings per person (€)	Net participation of people in employment (m)	Increase in annual earnings for employed participants (€m)
Low-qualified (50 hours)	20 029	1.67%	334	3.1	1 041.5
SME employees (50 hours)	24 005	1.67%	401	18.2	7 295.9
Non-permanent employees (50 hours)	24 005	1.67%	401	7.1	2 836.7
Adult population of working age (30 hours)	24 005	1%	240	23.9	5 731.6

*Source: Eurostat (online data code *earn_nt_net*)

⁴⁴⁶ Eurostat provides earnings figures at 50%, 67%, 80%, 100%, 125% or more.

⁴⁴⁷ https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Earnings_statistics#Low-wage_earners

Table 12B.2 - Annual wage impacts of policy packages (EU27)

Package / Target groups	Net participation of people in employment (m)	Increase in annual earnings for employed participants (€m)
A.1 Low-qualified	3.1	1 041.5
A.2 Inactive	0.0	0.0
A.3 Unemployed	0.0	0.0
A.4 SME employees	18.2	7 295.9
A.5 Non-permanent employees	7.1	2 836.7
B.1 Adult population of working age	23.9	5 731.6
B.2.1 Adult population + top-up for low qualified	24.4	7 170.0
B.2.2 Adult population + top-up for inactive	23.9	5 731.6
B.2.3 Adult population + top-up for unemployed	23.9	5 731.6
B.2.4 Adult population + top-up for SME employees	26.9	9 373.6
B.2.5 Adult population + top-up for non-permanent employees	25.0	7 147.6

Second, it can be expected that training will lead to an increase in employment amongst unemployed and inactive people. Based on the evidence in Annex 10, the increase in employment that might arise for previously unemployed or inactive participants in training entitlement schemes is assumed to be 2.5 percentage points after 30 hours and 4.175 percentage points after 50 hours. As with impacts on wages, a “middle-ground” approach is taken, which assumes constant returns between 30 hours and 50 hours, given that no clear-cut conclusion can be drawn from the literature as to whether the length of training will generate decreasing or increasing returns (see Annex 10). A sensitivity analysis is also undertaken based on decreasing returns; see section 12B.5.

The increase in employment would also lead to increased income, as unemployed or inactive people move from benefits to salaries. For the individuals, the net increase would consist only of the difference between wage income and income from benefits. Given that unemployed or inactive people tend to enter low-paid rather than high-paid jobs, it is assumed that they receive 80% of average annual net earnings in their respective countries.

The table below presents the estimates for the employment impacts and consequent income impacts of Training entitlement schemes after one year of operation. It shows the total incomes as well as the increase after accounting for the removal of benefits that would otherwise be paid to the unemployed

or inactive. Annual benefits for the unemployed or inactive are based on the EU27 average of €10 343.⁴⁴⁸ Income impacts in future years (for the Year 1 cohort) would most likely be lower, as some of the unemployed or inactive would eventually enter employment anyway, even in the absence of a training entitlement. This is taken into account in the calculation of the benefit-cost ratios below, as explained below (see “Scenario analysis” in section 12B.4 below).

Table 12B.3: Increased annual income for those entering employment (EU27)

Target group	Net participation of those not in employment (m)	Number entering employment (m)	Annual net earnings per person (€)*	Increased wages for persons entering employment (€m)	Savings in benefits (€m)	Increase in incomes (after benefit reduction) (€m)
Inactive (50 hours)	9.2	0.4	20 029	7 722.58	3 987.9	3 734.6
Unemployed (50 hours)	2.2	0.1	20 029	1 849.46	955.1	894.4
Inactive (30 hours)	7.7	0.2	20 029	3 867.6	1 997.2	1 870.4
Unemployed (30 hours)	1.8	0.0	20 029	926.2	478.3	447.9

*Single person without children earning 80% of the average earning; Source: Eurostat (online data code *earn_nt_net*)

Table 12B.4: Annual income effects of packages (EU27)

Package / Target groups	Number entering employment (m)	Total income of persons entering employment (€m)	Savings in benefits (€m)	Increase in incomes (after benefit reduction) (€m)
A.1 Low-qualified	0.1	2 254.5	1 164.2	1 090.3
A.2 Inactive	0.4	7 722.5	3 987.9	3 734.6
A.3 Unemployed	0.1	1 849.4	955.1	894.4
A.4 SME employees	0.0	0.0	0.0	0.0
A.5 Non-permanent employees	0.0	0.0	0.0	0.0
B.1 Adult population of working age	0.2	4 793.8	2 475.5	2 318.3
B.2.1 Adult population + top-up for low qualified	0.3	5 130.8	2 649.6	2 481.2

⁴⁴⁸ Eurostat (2020): Social protection statistics - unemployment benefits.

B.2.2 Adult population + top-up for inactive	0.4	8 648.8	4 466.3	4 182.5
B.2.3 Adult population + top-up for unemployed	0.3	5 717.0	2 952.3	2 764.7
B.2.4 Adult population + top-up for SME employees	0.2	4 793.8	2 475.5	2 318.3
B.2.5 Adult population + top-up for non-permanent employees	0.2	4 793.8	2 475.5	2 318.3

2. Costs and benefits for employers

This sub-section lists the main effects for employers whose staff participates in the training entitlement schemes through Packages A or Package B.

Costs

For the purposes of this CBA, it is assumed that the costs will be borne by public authorities and that there is no compulsion on employers to meet any costs. The direct costs for employers will therefore be zero. Whilst Member States might choose to require employers to co-finance training entitlements, this would reduce the costs for public authorities and considered below and hence not affect overall benefit-cost ratios.

Employers may also incur costs due to staff absence during training, either because they voluntarily allow to participate in training funded by individual entitlements during working hours, or because such obligations result from strengthened paid training leave provisions. These potential costs are considered separately in Sections 12B.6 and 7 below.

Benefits

Based on the evidence in Annex 10, the total increase in productivity that would arise for employed participants in Training entitlement schemes is assumed to be 2 per cent on average after 30 hours and 3.33 per cent after 50 hours (although it is likely to vary widely across the cohort of participants). Net increase in productivity is calculated by deducting wage increases from the value of total productivity. As with impacts on wages, a “middle-ground” approach is taken, which assumes constant returns between 30 hours and 50 hours, given that no clear-cut conclusion can be drawn from the literature as to whether the length of training will generate decreasing or increasing returns (see Annex 10). A sensitivity analysis is also undertaken based on decreasing returns (see Section 12B.5).

Comprehensive, up-to-date and accurate data on labour productivity was not available to inform the CBA. In order not to overstate the benefits to employers, a cautious approach is therefore taken to estimating the increase in value added to employers arising from increased productivity. It is assumed that added value prior to participation in training is equal to wages, although in practice added value would usually exceed wages.

As with the benefits for individuals, it is assumed that a certain proportion of participants would have participated in training in the absence of Training entitlement schemes. The benefits to employers are

thus based on net participation rates rather than gross participation rates, i.e. taking deadweight loss into account.

Given the expected net increase in participation in training amongst employed persons (i.e. taking into account deadweight loss), the expected increase in productivity for each type of employed person and for each policy package is as presented in the Tables below.

Table 12B.5: Annual increase in productivity for persons in employment (EU27)

Target group	Increase in productivity per employee participating (€)	Net participation of people in employment (€m)	Total increase in productivity (€m)	Net increase in productivity (€m)
Package A (50 hours)				
Low-qualified	661	3.1	2 058.0	1 016.5
SME employees	792	18.2	14 417.0	7 121.1
Non-permanent employees	792	7.1	5 605.4	2 768.7
Package B (30 hours)				
Adult population of working age	480	23.9	11 463.2	5 731.6

Table 12B.6: Annual increase in productivity for policy packages (EU27)

Package / Target groups	Net participation of people in employment (m)	Total increase in productivity (€m)	Net increase in productivity (€m)
A.1 Low-qualified	3.1	2 058.0	1 016.5
A.2 Inactive	0.0	0.0	0.0
A.3 Unemployed	0.0	0.0	0.0
A.4 SME employees	18.2	14 417.0	7 121.1
A.5 Non-permanent employees	7.1	5 605.4	2 768.7
B.1 Adult population of working age	23.9	11 463.2	5 731.6
B.2.1 Adult population + top-up for low qualified	24.4	14 315.0	7 145.0

B.2.2 Adult population + top-up for inactive	23.9	11 463.2	5 731.6
B.2.3 Adult population + top-up for unemployed	23.9	11 463.2	5 731.6
B.2.4 Adult population + top-up for SME employees	26.9	18 572.4	9 198.8
B.2.5 Adult population + top-up for non-permanent employees	25.0	14 227.3	7 079.7

3. Costs and benefits for public authorities

This sub-section lists the main impacts for public authorities in terms of direct and administrative costs of financing the training entitlement schemes, increased tax revenues and savings on benefits expenditures.

Costs

First, there is the cost of the training entitlements for individuals. Since the unit cost of the training entitlements is fixed, the total cost is simply the unit cost multiplied by the number of participants.

Package A: It is assumed that the training entitlement is 50 hours of training. Based on the evidence in Annex 10, it is assumed that the average unit price for one hour of training is €15 in France (as per review of evidence in Annex 11). The cost of equivalent training entitlements in other countries is calculated using national price deflators for the education sector.⁴⁴⁹

Package B.1: it is assumed that all adults (aged 25-64 years) receive a training entitlement of 30 hours. Again, the unit price in France would be €15 per hour, whilst the cost in other countries is calculated using national price deflators.

Package B.2.1 to B.2.5: the various target groups would receive a training entitlement of 50 hours, whilst the rest of the Adult population of working age would receive a training entitlement of 30 hours. Costs per hour are the same as in the other packages.

Second, there is the administrative cost of operating training entitlement schemes. Based on the evidence in Annex 10, the annual costs of operating schemes are assumed to account for 15% of costs of training entitlements within Package A. Since Package B is estimated to have higher levels of participation, some economies of scale can be expected in respect of administrative costs; for that reason, the annual costs of operating schemes in Package B are assumed to account for 8% of training entitlements.⁴⁵⁰ The examples of previous schemes (Annex 11) did not provide evidence of set-up costs separate from recurring costs. Administrative costs are therefore assumed to include both set-

⁴⁴⁹ Sánchez-Barrioluengo, M. (2016): Expenditure on education in Purchasing Power Standards: A comparison of three alternative deflators. €28261 EN. doi:10.2791/690227. European Commission.

⁴⁵⁰ As shown in Annex 10, evidence from France suggested an administration cost equal to 2% of the training entitlement, whilst in Germany it was 30%. On that basis, a middle ground is taken here, i.e. 15% for the targeted schemes in Package A and 8% for the comprehensive schemes in Package B.

up costs and recurring costs. After the first year, operating costs might be expected to fall slightly depending on the extent to which any one-off set-up costs are incurred. However, in order to avoid understating annual operating costs, it is assumed that they remain constant beyond Year 1.

The table below presents the estimated cost of each package for EU27. From the table, it can be seen that the total cost as a percentage of GDP varies from 0.01% for Package A.3 (50 hours entitlement for the unemployed) to 0.20% for Package B.2.4 (30 hours entitlement for all entire Adult population of working age, with 20-hours top-up for employees of SMEs).

These totals for EU27 hide significant variations between Member States in respect of the cost of each training entitlement (i.e. taking into account the relative costs of education and training provision in each country).

- The estimated cost of a training entitlement of 30-50 hours is lowest in Bulgaria (€87-145), Romania (€99-165) and Lithuania (€145-241). It is highest in Luxembourg (€1 214-2 023), Sweden (€813-1 356) and Denmark (€ 628-1 046). The average across EU27 is €381-631.

Table 12B.7: Annual cost of training entitlements (EU27)

Package	Target group	Gross participation (m)	Cost of training entitlements (€m)	Administrative cost as a percentage of training entitlements	Administrative cost (€m)	Total cost (€m)	Total cost (% of GDP*)
A							
A.1	Low-qualified	6.6	4 229.0	15%	634.3	4 863.3	0.04
A.2	Inactive	10.7	6 579.8	15%	987.0	7 566.8	0.06
A.3	Unemployed	2.6	1 707.5	15%	256.1	1 963.7	0.01
A.4	SME employees	24.8	15 617.5	15%	2 342.6	17 960.1	0.13
A.5	Non-permanent employees	9.5	6 044.1	15%	906.6	6 950.7	0.05
B							
B.1	Adult population of working age	44.0	16 758.6	8%	1 340.7	18 099.3	0.14
B.2.1	Adult population + top-up for low qualified	45.8	19 147.5	8%	1 531.8	20 679.3	0.15
B.2.2	Adult population + top-up for inactive	45.8	20 036.6	8%	1 602.9	21 639.5	0.16
B.2.3	Adult population + top-up for unemployed	44.4	17 609.3	8%	1 408.7	19 018.0	0.14
B.2.4	Adult population + top-up for SME employees	48.1	24 539.0	8%	1 963.1	26 502.1	0.20
B.2.5	Adult population	45.6	19 769.6	8%	1 581.6	21 351.2	0.16

	+ top-up for non-permanent employees						
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*EU27 GDP at market prices, 2020 (Source: Eurostat)

Benefits

Increased participation in training can be expected to improve the public finances in two ways.

The first monetary benefit for public authorities would consist of increased tax revenues, which would arise in two ways. First, the increased added value for enterprises (arising from higher productivity) would result in increased tax revenue (from taxes on employers or employees). Second, part of the new wages of unemployed or inactive people entering employment would be paid in tax.

The level of tax revenue will vary widely depending on the structure of business and personal income taxes and social security contributions in each Member State, the income level of individuals (i.e. higher paid participants would often face higher tax rates). For the CBA, it is assumed that the proportion of increases in incomes (of employers or employees) that is paid in tax is equal to the overall proportion of tax revenue to GDP in each country.⁴⁵¹ On that basis, the expected increase in tax revenue for each policy package is as presented in the tables below.

The second monetary benefit for public authorities would consist of savings on benefits paid to inactive or unemployed people who enter employment. As noted above, the proportion of unemployed or inactive participants in training entitlement schemes that would enter employment is assumed to be 2.5 per cent after 30 hours and 4.175% after 50 hours. Data from Eurostat suggests that the level of benefits paid to each unemployment person in EU27 is on average €10 343.⁴⁵² Taking this average, an estimate of the total savings on benefits is offered in the table below.

The table below presents the estimates for the improvements to the public finance attributable to the training entitlement schemes after one year of operation, the costs of training entitlements and thus the net effect on public finances. It should be noted this is a one-year “highest cost scenario” that assumes that public authorities bear the full cost, whereas in practice Member States will be free to decide how to finance schemes, e.g. whether to require employers or individuals to meet any of the costs or whether to fund schemes through levies, taxation, borrowing or cutting other forms of public expenditure.

The table shows that schemes are unlikely to be self-financing within the same year. However, while the costs of training entitlements are incurred only in the year of operation, the benefits (e.g. improved productivity, more people in employment) can be expected to last into future years. This creates the potential for schemes to become self-financing in time. The scenario analysis in the next sub-section provides the detailed analysis of this question.

In future years, the increased tax revenue from those entering employment and the savings on benefit (for Year 1 participants entering employment) would most likely be lower, as some of the unemployed or inactive might have displaced other hires and the higher productivity levels might imply a lower number of workers needed to produce the same output. These longer term or indirect effects are left to the general equilibrium analysis in 12C to assess.

⁴⁵¹ Source: Eurostat (Online data code: GOV_10A_TAXAG)

⁴⁵²https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Social_protection_statistics_-_unemployment_benefits

Table 12B.8: Year 1 net effect on public finances (EU27)

Package / Target group	Increased tax revenue (€m)	Savings on benefit expenditure (€m)	Total improvement to public finances (€m)	Cost of training entitlements (€m)	Net effect on public finances (€m)
A.1 Low-qualified	1 772.4	1 164.2	2 936.7	4 863.3	-1 926.6
A.2 Inactive	3 174.0	3 987.9	7 161.9	7 566.8	-404.9
A.3 Unemployed	760.1	955.1	1 715.2	1 963.7	-248.5
A.4 SME employees	5 925.4	0.0	5 925.4	17 960.1	-12 034.7
A.5 Non-permanent employees	2 303.8	0.0	2 303.8	6 950.7	-4 646.8
B.1 Adult population of working age	6 681.6	2 475.5	9 157.2	18 099.3	-8 942.1
B.2.1 Adult population + top-up for low qualified	7 992.2	2 649.6	10 641.8	20 679.3	-10 037.5
B.2.2 Adult population + top-up for inactive	8 266.0	4 466.3	12 732.3	21 639.5	-8 907.2
B.2.3 Adult population + top-up for unemployed	7 061.1	2 952.3	10 013.4	19 018.0	-9 004.6
B.2.4 Adult population + top-up for SME employees	9 603.5	2 475.5	12 079.1	26 502.1	-14 423.0
B.2.5 Adult population + top-up for non-permanent employees	7 817.7	2 475.5	10 293.2	21 351.2	-11 058.0

4. Estimating overall ratios of benefits to costs

This Section presents an overall comparison of the costs and benefits of the different packages against the baseline. The costs presented above would arise in Year 1, whilst the benefits would mostly arise in future years. The analysis presents total costs and benefits to society. It is therefore not necessary to introduce any assumptions about the distribution of benefits between employers, individuals and public authorities.

In order to calculate the overall benefit-cost ratio, the following assumptions are made:

- Schemes operate for one-year with all training taking place within the year;
- Costs of training entitlements arise within Year 1;
- One year's administrative costs are incurred;
- There is a lag of up to 12 months between participation and increases in productivity (for employed participants). All productivity impacts occur at the end of Year 1 (i.e. from the start of Year 2);
- There is a lag of up to 12 months between participation and entry into employment (for previously unemployed or inactive people). All employment impacts therefore occur at the end of Year 1 (i.e. the newly-employed enter employment at the start of Year 2), to account for lock-in effects;

- Productivity impacts are sustained for 5 years, i.e. from start Year 2 to end Year 6;
- Employment impacts are included for 18 months after the end of the year of operation (i.e. to the middle of Year 3). This is a cautious approach that assumes that unemployed or inactive participants would have eventually found work in the absence of any training entitlement.
- Social discount rate is 4% (as recommended by the Better Regulation Guidelines).

The table below presents the summary of the scenario analysis. From the table, a number of conclusions can be drawn:

- Benefits will exceed the cost of Training entitlement schemes for all policy packages, provided that productivity impacts are sustained for 2 years (i.e. end Year 3) and employment impacts are sustained for 1.5 years (i.e. middle of Year 3).
- The highest benefit-cost ratios after five years (i.e. end Year 6) are offered by the various sub-packages within Policy Package B, as well as by Policy Packages A.4 (SME employees 50 hours) and A.5 (non-permanent employees 50 hours).

If constant returns are assumed, then the costs and benefits of operating schemes in future years (and thus the benefit-cost ratios) would be identical to those in Year 1.

It should be noted that the CBA is based on a partial equilibrium analysis. Some caution is therefore required when extrapolating the benefits over several years. Over time, it could be expected that those entering employment would gradually receive further increases in wages, as they gain skills, experience, etc. The initial participation in training (funded by the Training entitlement scheme) might stimulate some individuals to participation in additional training, thus generating further positive impacts on wages and productivity. Long-term wage impacts in future years might thus be greater than estimated here for Year 1, due to the progressive accumulation of human capital investments and its cumulative effects on productivity, output and, in turn, aggregated demand. Conversely, some of those entering employment might be made redundant at some point in the future. Moreover, some of those entering employment after participation in Year 1 might be hired instead of and not in addition to other individuals not taking up training (displacement effect). Impacts on incomes and public finances in future years might thus be different than estimated here for Year 1.

Given these limits to analysis based on partial equilibrium, a complementary analysis based on general equilibrium is provided in Annex 12C.

Table 12B.9 - Comparison of scenarios (one year of costs, benefits sustained over 5 years)

EU27	A.1	A.2	A.3	A.4	A.5	B.1	B.2.1	B.2.2	B.2.3	B.2.4	B.2.5
	Low-qualified	Inactive	Unemployed	SME employees	Non-perm	All	All + top-up for low-qualif	All + top-up for inactive	All + top-up for unempl	All + top-up for SMEs	All + top-up for non-perm
Costs (€m)											
Total annual cost of Training entitlement schemes (Year 1)	4 863.3	7 566.8	1 963.7	17 960.1	6 950.7	18 099.3	20 679.3	21 639.5	19 018.0	26 502.1	21 351.2
Benefits (€m)											
Pre-tax increase in enterprise revenues from higher productivity (Year 2)*	2 058.0	0.0	0.0	14 417.0	5 605.4	11 463.2	14 315.0	11 463.2	11 463.2	18 572.4	14 227.3
Pre-tax increase in income for those entering employment (Year 2)*	2 254.5	7 722.5	1 849.4	0.0	0.0	4 793.8	5 130.8	8 648.8	5 717.0	4 793.8	4 793.8
Total benefits (Yr 2)	4 312.5	7 722.5	1 849.4	14 417.0	5 605.4	16 257.0	19 445.8	20 112.0	17 180.2	23 366.2	19 021.1
Total benefits (Yr 3)	2 935.5	3 558.5	852.2	13 286.7	5 165.9	12 773.5	15 557.0	14 549.8	13 198.9	19 325.3	15 320.9
Total benefits (Yr 4)	2 818.1	3 416.2	818.1	12 755.2	4 959.3	12 262.5	14 934.7	13 967.8	12 670.9	18 552.3	14 708.0
Total benefits (Yr 5)	2 705.4	3 279.6	785.4	12 245.0	4 760.9	11 772.0	14 337.3	13 409.1	12 164.1	17 810.2	14 119.7
Total benefits (Yr 6)	2 597.2	3 148.4	754.0	11 755.2	4 570.5	11 301.1	13 763.8	12 872.8	11 677.5	17 097.8	13 554.9
Net present value of benefits											

1 year (end Year 2)	4 312.5	7 722.5	1 849.4	14 417.0	5 605.4	16 257.0	19 445.8	20 112.0	17 180.2	23 366.2	19 021.1
2 years (end Year 3)	7 248.0	11 281.1	2 701.7	27 703.7	10 771.4	29 030.5	35 002.8	34 661.8	30 379.1	42 691.5	34 342.0
3 years (end Year 4)	10 066.1	14 697.3	3 519.8	40 459.0	15 730.7	41 293.0	49 937.6	48 629.6	43 050.0	61 243.8	49 050.0
4 years (end Year 5)	12 771.5	17 976.9	4 305.2	52 704.0	20 491.6	53 065.0	64 274.9	62 038.8	55 214.1	79 054.0	63 169.7
5 years (end Year 6)	15 368.7	21 125.2	5 059.2	64 459.2	25 062.1	64 366.2	78 038.7	74 911.5	66 891.6	96 151.9	76 724.6
Benefit-cost ratios											
1 year (end Year 2)	0.9	1.0	0.9	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9
2 years (end Year 3)	1.5	1.5	1.4	1.5	1.5	1.6	1.7	1.6	1.6	1.6	1.6
3 years (end Year 4)	2.1	1.9	1.8	2.3	2.3	2.3	2.4	2.2	2.3	2.3	2.3
4 years (end Year 5)	2.6	2.4	2.2	2.9	2.9	2.9	3.1	2.9	2.9	3.0	3.0
5 years (end Year 6)	3.2	2.8	2.6	3.6	3.6	3.6	3.8	3.5	3.5	3.6	3.6

** Some of the increases in revenues for enterprises would be paid to employees in higher wages and some would be paid in tax (either directly or indirectly via increased taxes on wages). Some of the pre-tax increase in income for those entering employment would accrue to public authorities through personal tax or through the removal of social security benefits. It is also assumed that unemployed people would not remain unemployed indefinitely in the absence of Training entitlement schemes but would return to work within 18-30 months.*

Table 12B.10 below presents benefit-cost ratios for each Member State five years after the first year of operation (i.e. end Year 6). The table shows that after 5 years, benefit-cost ratios are positive for all policy packages in all Member States.

Both tables show that there are considerable differences in Member States. Such differences reflect differences in participation rates, different costs of training and different levels of earnings. In particular, where earnings are high relative to the cost of education and training, this tends to result in a higher benefit-cost ratio.

Table 12B.10: Benefit-cost ratios by Member State after 5 years (end Year 6)

	A.1	A.2	A.3	A.4	A.5	B.1	B2.1	B2.2	B2.3	B2.4	B2.5
Benefit-cost ratios (end Year 3)	Low-qualified	Inactive	Unempl	SME employees	Non-permanent	All	All + top-up low-qualified	All + top-up inactive	All + top-up unempl	All + top-up SMEs	All + top-up non-permanent
EU-27	3.2	2.8	2.6	3.6	3.6	3.6	3.8	3.5	3.5	3.6	3.6
Belgium	2.6	2.3	2.0	2.9	2.8	2.8	2.9	2.7	2.8	2.9	2.8
Bulgaria	4.0	3.4	3.4	4.3	5.2	5.1	5.6	4.8	5.0	4.6	5.1
Czechia	3.5	2.8	2.8	3.7	4.1	4.2	4.8	4.1	4.2	3.9	4.2
Denmark	2.8	2.2	2.2	3.5	3.3	3.1	3.4	3.0	3.1	3.4	3.1
Germany	3.5	2.7	2.9	4.0	3.7	3.8	4.1	3.6	3.7	4.0	3.8
Estonia	3.7	3.1	2.9	4.1	4.1	4.2	4.6	4.1	4.2	4.2	4.2
Ireland	3.8	3.2	2.9	4.3	4.2	3.9	4.2	3.9	3.9	4.3	4.0
Greece	2.9	2.4	2.4	3.0	3.6	3.3	3.4	3.2	3.2	3.1	3.4
Spain	3.2	2.5	2.5	3.5	3.7	3.6	3.7	3.4	3.5	3.5	3.6
France	3.0	2.7	2.2	3.6	3.3	3.2	3.3	3.1	3.1	3.5	3.2
Croatia	2.6	2.4	2.3	2.9	3.0	3.0	3.1	2.9	3.0	3.0	3.0
Italy	2.9	2.5	2.4	3.2	3.2	3.1	3.2	3.0	3.1	3.2	3.2
Cyprus	2.6	2.3	2.1	3.1	3.1	2.8	3.0	2.8	2.8	3.1	2.9

Latvia	2.3	2.0	1.9	2.7	2.6	2.6	2.9	2.5	2.6	2.7	2.6
Lithuania	3.9	3.5	3.4	4.2	4.7	4.6	5.1	4.5	4.6	4.5	4.6
Luxembourg	1.8	1.5	1.3	2.0	1.9	1.9	1.9	1.8	1.8	1.9	1.9
Hungary	2.3	2.5	2.3	3.4	2.9	2.8	3.0	2.7	2.8	3.3	2.8
Malta	2.9	2.5	2.2	3.3	3.5	3.3	3.5	3.2	3.3	3.4	3.4
Netherlands	3.7	3.1	2.6	4.6	3.6	3.7	4.0	3.7	3.7	4.2	3.8
Austria	2.5	2.1	1.9	3.0	2.5	2.5	2.7	2.5	2.5	2.9	2.5
Poland	3.4	2.9	2.9	3.7	4.3	4.1	4.6	3.9	4.1	3.9	4.2
Portugal	2.5	2.2	2.1	2.9	2.9	2.8	2.9	2.7	2.8	2.9	2.9
Romania	4.7	4.0	3.8	5.0	6.5	6.1	6.6	5.8	6.1	5.4	6.2
Slovenia	2.1	1.7	1.7	2.3	2.2	2.2	2.4	2.1	2.2	2.3	2.2
Slovakia	2.4	2.2	2.1	2.7	2.7	2.5	2.8	2.5	2.5	2.8	2.6
Finland	2.7	2.1	2.5	3.4	3.2	3.0	3.2	2.9	3.0	3.4	3.1
Sweden	1.8	1.3	1.6	2.4	2.1	2.0	2.2	1.9	2.0	2.3	2.0

5. Sensitivity analysis

The coefficients underpinning the CBA are informed by the evidence in the literature review, and should be considered as “middle ground” estimates in view of the literature. The purpose of this section is to assess the robustness of results to alternative assumptions.

Eight sensitivity analyses have been undertaken:

First, a **moderately higher deadweight loss (DWL)**. The calculations of conventional measures of DWL based on Schwerdt et al. (2012) are inflated by 25% across all policy packages.

Second, a **significantly higher DWL** of 60%, drawn from Hidalgo et al. (2014) and scaled by target group and Member State as per the procedure described in Annex 12A.8. This can be considered as upper bound in terms of the DWL estimates found in the literature.

Third, an adjustment of **DWL taking into account dynamic effects**. Within the figures above, a conventional measure of DWL is used, which provides an indication of the number of people who would not have otherwise trained. This is taken from Schwerdt et al. (2012). As explained in Annex 11 (cf. columns 3 of Table A11.2), the conventional measure ignores some dynamic effects that will affect rates of participation, most notably the likelihood that some people might train more often or for longer as a consequence of possessing a training entitlement. An adjusted measure of DWL was therefore used taking account of such effects, as derived from Messer and Wolter (2009). The application of this measures of DWL tends to result in higher participation rates.

Fourth, a **lower productivity coefficient**. A cautious approach is taken, using a productivity coefficient which is three quarters of the value of the productivity coefficient used above, i.e. 1.5% after 30 hours training (instead of 2%) and 2.475% after 50 hours training (instead of 3.3%).

Fifth, a **lower employment coefficient**. Again, a cautious approach is taken, using an employment coefficient which is three quarters of the value of the employment coefficient used above, i.e. 1.875% after 30 hours training (instead of 2.5%) and 3.13% after 50 hours training (instead of 4.175%).

Sixth, **higher training costs**. A previous study for the European Commission has established EU-level simplified cost options (SCOs) under Article 14.1 of the European Social Fund (ESF) regulation. The study estimated hourly costs of continual vocational training courses for employees per participant training hour incurred by enterprises in each Member State at 2015 values.⁴⁵³ The SCO have been updated in line with 2020 values and then applied to all training to be offered under the proposed training entitlement schemes.⁴⁵⁴ Using this method, the hourly cost of training is greater in every Member State (except Portugal), compared to the hourly cost calculating according to the method described above.

Seventh, **higher administration costs**. Across all policy packages, the administration costs are increased by 50%, i.e. from 15% to 22.5% of the cost of training entitlements in Package A and from 8% to 12% of the cost of training entitlements in Package B.

⁴⁵³ PPMI (2018), Developing ‘Off-the-Shelf’ Simplified Cost Options (SCOs) under Article 14.1 of the European Social Fund (ESF) regulation.

⁴⁵⁴ The SCO figure for Romania in the report appeared very low (€0.27 per hour at 2015 values). Instead, the next lowest figure has been used, i.e. the value for Bulgaria (€5.46 at 2020 values).

Last, an assumption of **decreasing returns to training** between 30 hours and 50 hours. The additional return between 30 hours and 50 hours is reduced by half in respect of productivity and employment. Thus the productivity coefficient for 50 hours is 2.67% (instead of 3.3%) and the employment coefficient is 3.33 (instead of 4.175%).

NB: it should be noted that a sensitivity analysis of the wage coefficient is unnecessary as it does not affect overall benefit-cost ratios, only the distribution of productivity gains between employers (profits) and employees (wages).

The results of the sensitivity analysis are presented below. They show that:

- all packages feature a benefit-cost ratio above one at the latest four years after the first year of operation, even when using considerably more pessimistic assumptions concerning DWL, productivity, employment effects, training or administrative costs;
- using the simplified cost options calculated under Article 14.1 of the ESF regulation, benefit-cost ratios are not positive until three years after the year of operation (i.e. end Year 4) or four years in the case of packages A.1, A.2, A3 and B.2.2. However, this should be considered a pessimistic scenario, since the SCOs are based on training for employees, whereas the evidence from the French CPF points to lower hourly costs for ILA-funded training;
- even using the “upper bound” measure of DWL (60%), benefit-cost ratios exceed or are equal to costs within 2 years (i.e. end Year 3) within all the packages, except A.4, A.5 and B2.5. However, all benefit-cost ratios are positive within 3 years (i.e. end Year 4);
- the inflated measure of DWL slightly reduces the benefit-cost ratios for all policy packages, however, all packages still feature a positive benefit-cost ratio two years after the year of operation (i.e. end Year 3);
- a more dynamic measure of DWL results in higher benefit-cost ratios, due to the higher participation rates;
- the benefit-cost ratios are most sensitive to any changes in the productivity coefficient (except in the packages that only serve the inactive or unemployed, i.e. A.2 and A.3, since by definition these packages do not offer benefits for those already in employment);
- the benefit-cost ratios are only slightly sensitive to the higher estimates for administration costs;
- the benefit-cost ratios are only slightly affected by assuming decreasing returns to training between 30 hours and 50 hours.

Table 12B.12: Sensitivity analysis for benefit-cost ratios

	A.1	A.2	A.3	A.4	A.5	B.1	B2.1	B2.2	B2.3	B2.4	B2.5
Benefit-cost ratios	Low-qualified	Inactive	Unempl oyed	SME employe es	Non- permane nt	All	All + top-up low- qualified	All + top-up inactive	All + top-up unemplo yed	All + top-up SMEs	All + top-up non- permane nt
Benchmark set of parameters (above)											
1 year (end Year 2)	0.9	1.0	0.9	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9
2 years (end Year 3)	1.5	1.5	1.4	1.5	1.5	1.6	1.7	1.6	1.6	1.6	1.6
3 years (end Year 4)	2.1	1.9	1.8	2.3	2.3	2.3	2.4	2.2	2.3	2.3	2.3
4 years (end Year 5)	2.6	2.4	2.2	2.9	2.9	2.9	3.1	2.9	2.9	3.0	3.0
5 years (end Year 6)	3.2	2.8	2.6	3.6	3.6	3.6	3.8	3.5	3.5	3.6	3.6
Moderately higher deadweight loss											
1 year (end Year 2)	0.9	1.0	0.9	0.7	0.7	0.8	0.9	0.9	0.8	0.8	0.8
2 years (end Year 3)	1.4	1.4	1.3	1.4	1.4	1.5	1.6	1.5	1.5	1.5	1.5
3 years (end Year 4)	2.0	1.9	1.7	2.0	2.1	2.1	2.2	2.1	2.1	2.1	2.1
4 years (end Year 5)	2.5	2.3	2.1	2.7	2.7	2.7	2.9	2.6	2.7	2.7	2.7
5 years (end Year 6)	3.1	2.7	2.4	3.3	3.3	3.3	3.5	3.2	3.2	3.3	3.2
Upper bound deadweight loss (60%)											
1 year (end Year 2)	0.8	0.8	0.7	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.5
2 years (end Year 3)	1.3	1.2	1.1	0.9	0.9	1.0	1.1	1.1	1.0	1.0	0.9
3 years (end Year 4)	1.8	1.6	1.4	1.3	1.4	1.4	1.5	1.5	1.4	1.4	1.3

	A.1	A.2	A.3	A.4	A.5	B.1	B.2.1	B.2.2	B.2.3	B.2.4	B.2.5
Benefit-cost ratios	Low-qualified	Inactive	Unemployed	SME employees	Non-permanent	All	All + top-up low-qualified	All + top-up inactive	All + top-up unemployed	All + top-up SMEs	All + top-up non-permanent
4 years (end Year 5)	2.2	2.0	1.7	1.7	1.8	1.8	2.0	1.9	1.8	1.8	1.6
5 years (end Year 6)	2.7	2.3	2.0	2.1	2.2	2.2	2.4	2.2	2.2	2.2	2.0
Dynamic deadweight loss											
1 year (end Year 2)	0.9	1.1	1.0	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0
2 years (end Year 3)	1.5	1.5	1.4	1.7	1.7	1.7	1.8	1.7	1.7	1.7	1.8
3 years (end Year 4)	2.1	2.0	1.9	2.4	2.5	2.5	2.6	2.4	2.4	2.5	2.5
4 years (end Year 5)	2.7	2.5	2.3	3.2	3.2	3.2	3.3	3.1	3.1	3.2	3.2
5 years (end Year 6)	3.3	2.9	2.7	3.9	3.9	3.8	4.1	3.7	3.8	3.9	3.9
Lower productivity coefficient											
1 year (end Year 2)	0.8	1.0	0.9	0.6	0.6	0.7	0.8	0.7	0.8	0.7	0.7
2 years (end Year 3)	1.3	1.5	1.4	1.2	1.2	1.3	1.4	1.2	1.3	1.3	1.3
3 years (end Year 4)	1.8	1.9	1.8	1.7	1.7	1.8	1.9	1.7	1.8	1.8	1.8
4 years (end Year 5)	2.2	2.4	2.2	2.2	2.2	2.4	2.5	2.1	2.4	2.3	2.3
5 years (end Year 6)	2.7	2.8	2.6	2.7	2.7	2.8	3.0	2.6	2.8	2.8	2.8
Lower employment coefficient											
1 year (end Year 2)	0.8	0.8	0.7	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8
2 years (end Year 3)	1.3	1.1	1.0	1.5	1.5	1.5	1.7	1.5	1.5	1.5	1.5
3 years (end Year 4)	1.8	1.5	1.3	2.3	2.3	2.2	2.4	2.1	2.1	2.2	2.2

	A.1	A.2	A.3	A.4	A.5	B.1	B.2.1	B.2.2	B.2.3	B.2.4	B.2.5
Benefit-cost ratios	Low-qualified	Inactive	Unemployed	SME employees	Non-permanent	All	All + top-up low-qualified	All + top-up inactive	All + top-up unemployed	All + top-up SMEs	All + top-up non-permanent
4 years (end Year 5)	2.4	1.8	1.6	2.9	2.9	2.8	3.1	2.6	2.7	2.9	2.8
5 years (end Year 6)	2.8	2.1	1.9	3.6	3.6	3.4	3.8	3.2	3.3	3.5	3.4
Higher training costs											
1 year (end Year 2)	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
2 years (end Year 3)	0.7	0.7	0.6	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7
3 years (end Year 4)	0.9	0.9	0.8	1.0	1.0	1.0	1.1	0.9	1.0	1.0	1.0
4 years (end Year 5)	1.2	1.0	1.0	1.3	1.3	1.3	1.4	1.2	1.3	1.3	1.3
5 years (end Year 6)	1.4	1.2	1.2	1.6	1.6	1.6	1.7	1.4	1.6	1.6	1.6
Higher administration costs											
1 year (end Year 2)	0.8	1.0	0.9	0.8	0.8	0.9	0.9	0.8	0.9	0.9	0.9
2 years (end Year 3)	1.4	1.4	1.3	1.4	1.5	1.5	1.6	1.4	1.5	1.6	1.6
3 years (end Year 4)	1.9	1.8	1.7	2.1	2.1	2.2	2.3	2.0	2.2	2.2	2.2
4 years (end Year 5)	2.5	2.2	2.1	2.8	2.8	2.8	3.0	2.5	2.8	2.9	2.9
5 years (end Year 6)	3.0	2.6	2.4	3.4	3.4	3.4	3.6	3.1	3.4	3.5	3.5
Decreasing returns to training											
1 year (end Year 2)	0.7	0.8	0.8	0.6	0.7	0.9	0.9	0.9	0.9	0.8	0.8
2 years (end Year 3)	1.2	1.2	1.1	1.2	1.3	1.6	1.6	1.5	1.6	1.4	1.5
3 years (end Year 4)	1.7	1.5	1.4	1.8	1.8	2.3	2.3	2.1	2.2	2.0	2.2

	A.1	A.2	A.3	A.4	A.5	B.1	B.2.1	B.2.2	B.2.3	B.2.4	B.2.5
Benefit-cost ratios	Low-qualified	Inactive	Unemployed	SME employees	Non-permanent	All	All + top-up low-qualified	All + top-up inactive	All + top-up unemployed	All + top-up SMEs	All + top-up non-permanent
4 years (end Year 5)	2.1	1.9	1.7	2.4	2.4	2.9	3.0	2.7	2.9	2.6	2.8
5 years (end Year 6)	2.5	2.2	2.1	2.9	2.9	3.6	3.6	3.3	3.5	3.2	3.4

6. Cost of time for training funded by individual training entitlements

The CBA presented above does not include the cost of time taken out of work for training purposes. Since training entitlement schemes aim to empower individuals to undertake training in their own interest and at the request of individuals, it is expected that a significant share of training funded by them will be undertaken outside of working hours, hence entailing costs that are difficult to monetize. Part of the training may however take place during working hours- either with the informal agreement of the employer (which is a way of cost sharing between employee and employer, possible e.g. in the French CPF), or because the individual makes use of rights granted formally under paid training leave schemes.

Estimated potential costs of lost working time are hence offered in the first table below. It should be noted that the cost of working time might fall on employers (should they agree to time off or be required by the rules set at Member State level) or employees (i.e. if employers decide and are able to reduce wages accordingly). Equally, Member States might choose to provide an entitlement to pay educational leave (see Section 12B.7 below).

Regardless of where the costs fall, the additional cost of training time (in comparison to the baseline scenario) will depend on net participation in training entitlement schemes, the number of learning hours, the level of earnings and the percentage of training undertaken in working time. The costs have thus been calculated as follows:

- Gross participation figures are drawn from the earlier analysis (Annex 12A) and are consistent with the figures used in the CBA above;
- Hours per person reflect the training entitlements within Packages A and B;
- Median hourly earnings are sourced from Eurostat (EU27); to be consistent with the rest of the CBA, low-qualified employees are assumed to earn 80% of the median;
- Where training takes place outside working time, it is assumed that no costs in terms of working time lost are incurred.

Table 12B.13 therefore provides an estimation of costs based on 5%, 10%, 50% and 100% of training funded by individual training entitlements taking place in work time. The estimates present the net cost to society regardless of where costs fall, i.e. regardless of any decision by Member States to finance or co-finance paid training leave.

Table 12B.13 - Gross costs of training time during working hours

	Target group	Gross participation of employees (m)	Median hourly earnings (€)	5% of training in working hours (€m)	10% of training in working hours (€m)	50% of training in working hours (€m)	100% of training in working hours (€m)

A.1	Low-qualified	3.6	10.54	96.1	192.1	960.7	1,921.4
A.2	Inactive	0.0	0.0	0.0	0.0	0.0	0.0
A.3	Unemployed	0.0	0.0	0.0	0.0	0.0	0.0
A.4	SME employees	24.8	13.18	816.4	1 632.7	8 163.7	16 327.4
A.5	Non-permanent employees	9.5	13.18	313.9	627.8	3 139.0	6 278.0
B.1	Working age population	32.9	13.18	649.9	1 299.8	6 498.9	12 997.7
B.2.1	Working age + top-up for low qualified	33.9	Low-qualified: 10.54 Others - 13.18	693.7	1 387.4	6 936.8	13 873.7
B.2.2	Working age + top-up for inactive	32.9	13.18	649.9	1 299.8	6 498.9	12 997.7
B.2.3	Working age + top-up for unemployed	32.9	13.18	649.9	1 299.8	6 498.9	12 997.7
B.2.4	Working age + top-up for SME employees	36.9	13.18	1 056.6	2 113.2	10 565.9	21 131.7
B.2.5	Working age + top-up for non-permanent employees	34.4	13.18	806.3	1 612.5	8 062.6	16 125.3

Net cost of training time

In order to calculate the benefit-cost ratios of schemes including costs of lost working time, it is necessary to use rates of net participation in training entitlement schemes and thus the net costs of training time. This takes account of the fact that some employers already provide training for employees and thus already incur costs in terms of working time lost. The difference between gross costs and net costs would represent a deadweight transfer from public authorities to employers, i.e. employers receive compensation for costs of training time that they would have incurred anyway.

The net costs have thus been calculated as follows:

- Net participation figures are drawn from the earlier analysis (Annex 12A) and are consistent with the figures used in the CBA above;
- Hours per person reflect the training entitlements within Packages A and B;
- Median hourly earnings are sourced from Eurostat (EU27); to be consistent with the rest of the CBA, low-qualified employees are assumed to earn 80% of the median;

Table 12B.14 therefore provides an estimation of costs based on 5%, 10%, 50% and 100% of training taking place in work time. The estimates present the net cost to society regardless of where costs fall, i.e. regardless of any decision by Member States to finance or co-finance paid educational leave.

Table 12B.14 - Net costs of training time

	Target group	Net participation of employees (m)	Median hourly earnings (€)	5% of training in working hours (€m)	10% of training in working hours (€m)	50% of training in working hours (€m)	100% of training in working hours (€m)
A.1	Low-qualified	3.1	10.54	82.0	164.1	820.4	1,640.9
A.2	Inactive	0.0	0.0	0.0	0.0	0.0	0.0
A.3	Unemployed	0.0	0.0	0.0	0.0	0.0	0.0
A.4	SME employees	18.2	13.18	599.7	1 199.4	5 996.8	11 993.5
A.5	Non-permanent employees	7.1	13.18	233.2	466.3	2 331.6	4 663.1
B.1	Working age population	23.9	13.18	472.0	944.1	4 720.4	9 440.9
B.2.1	Working age + top-up for low qualified	24.4	Low-qualified: 10.54 Others - 13.18	502.6	1 005.2	5 026.0	10 052.1
B.2.2	Working age + top-up for inactive	32.9	13.18	649.9	1 299.8	6 498.9	12 997.7
B.2.3	Working age + top-up for unemployed	32.9	13.18	649.9	1 299.8	6 498.9	12 997.7
B.2.4	Working age + top-up for SME employees	26.9	13.18	770.8	1 541.6	7 707.9	15 415.8
B.2.5	Working age + top-up for non-permanent employees	25.0	13.18	588.2	1 176.4	5 882.0	11 764.0

Benefit-cost ratios including cost of training time

The table below presents an estimation of the benefit-cost ratios for training entitlement schemes including the cost of working time. Given the impossibility in determining how much training will take place in work time, the table below provides an estimation of the benefit-cost ratios in a “highest-cost scenario”, i.e. where costs are incurred for 100% of training time (i.e. all training takes place in working time). It should be noted that the same benefit-cost ratios apply both in a situation where employers incur the cost of training time (the ratios are based on benefits and costs to society without taking account of distribution effects, i.e. payments are made to employers to compensate them for training in working hours).

Table 12B.15 shows that:

- In the core proposal (see scenario analysis in section 12B.4), which takes no account of the cost of training time, benefits exceed costs within 2 years (i.e. end Year 3) in all packages.
- where 100% of training takes place in work time, benefits exceed or are equal to costs within 2 years (i.e. end Year 3) within all the packages, except those serving only SME employees (A.4) or only non-permanent employees (A.5).
- where 100% of training takes place in work time, benefits exceed costs only after 3 years (i.e. end Year 4) within the packages targeting only SME employees (A.3) or only non-permanent employees (A.4).

Overall then, these estimates suggest that even where 100% of training takes place in working time, there is at worst only a slightly delay in the time period before benefits of schemes exceed costs.

Table 12B.15 - Estimated benefit-cost ratios including cost of training time

	A.1	A.2	A.3	A.4	A.5	B.1	B.2.1	B.2.2	B.2.3	B.2.4	B.2.5
Benefit-cost ratios	Low-qualified	Inactive	Unemployed	SME employees	Non-permanent	All	All + top-up low-qualified	All + top-up inactive	All + top-up unemployed	All + top-up SMEs	All + top-up non-permanent
Excluding training time											
1 year (end Year 2)	0.9	1.0	0.9	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9
2 years (end Year 3)	1.5	1.5	1.4	1.5	1.5	1.6	1.7	1.6	1.6	1.6	1.6
3 years (end Year 4)	2.1	1.9	1.8	2.3	2.3	2.3	2.4	2.2	2.3	2.3	2.3
4 years (end Year 5)	2.6	2.4	2.2	2.9	2.9	2.9	3.1	2.9	2.9	3.0	3.0
5 years (end Year 6)	3.2	2.8	2.6	3.6	3.6	3.6	3.8	3.5	3.5	3.6	3.6
Including training time (100%)											
1 year (end Year 2)	0.7	1.0	0.9	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
2 years (end Year 3)	1.1	1.5	1.4	0.9	0.9	1.1	1.1	1.0	1.1	1.0	1.0
3 years (end Year 4)	1.5	1.9	1.8	1.4	1.4	1.5	1.6	1.4	1.5	1.5	1.5
4 years (end Year 5)	2.0	2.4	2.2	1.8	1.8	1.9	2.1	1.8	1.9	1.9	1.9
5 years (end Year 6)	2.4	2.8	2.6	2.2	2.2	2.3	2.5	2.2	2.4	2.3	2.3

NB: “highest-cost scenario” assuming that 100% of training time occurs is during working hours.

7. Cost of paid training leave

In order to guide decision-making, this sub-section presents illustrative estimates of the potential costs of strengthening paid training leave provisions as such, as recommended under packages A and B. The difference to the previous sub-Section is that in this Section, we consider potential costs of a higher paid training leave uptake among all employed adults, independently of whether they also make use of training entitlements provided under packages A or B.

Evidence from previous schemes does not provide a reliable basis on which to determine likely take-up rates. As noted in Annex 11, a previous report by Cedefop examined existing paid training leave schemes in the EU. Of the schemes which had wide or comprehensive coverage of the overall adult population, only three offered data on take-up rates amongst eligible groups: Belgium (2.29%), Estonia (5%), and Latvia (0.4%).⁴⁵⁵

For that reason, illustrative cost estimates are offered for paid training leave take-up rates of 1%, 3% and 5% amongst the full population of employed adults aged 25-64 years, whereby an annual take-up rate of 5% across EU-27 could be considered as successful “upward convergence” to the highest values currently observed among annual paid training leave schemes with broad coverage.

The cost estimates in the below Table show that at €5.9 billion, the annual costs of a 5% take-up are significantly smaller than the net benefits of all packages previously shown in Table 12B.9 after 5 years (with the exception of package A.3 due to its small target group, the unemployed). This suggests that taken together, the policy measures recommended under packages A and B can contribute to sustainable public finances.

Table 12B.16: Illustrative estimates of the cost of paid training leave

Hours per person	Number employed adults 25-64 years (m)	Hours per person	Median hourly earnings (€)	Cost at 1% take-up (€m)	Cost at 3% take-up (€m)	Cost at 5% take-up (€m)
50	178.7	50	13.18	1 177.3	3 532.0	5 886.6
30	178.7	30	13.18	706.4	2 119.2	3 532.0

C. LONG TERM AND INDIRECT IMPACTS

1. Rationale and scope of the analysis

The goal of this Annex Section is to complement the analysis undertaken in the CBA (Annex 12B) with insights on the longer term and general equilibrium effects of the provision of training entitlements to different target groups, drawing on simulation estimates from the BeTa model (see Box 12C.1 below for a presentation of this model).

This is relevant as, for instance:

⁴⁵⁵ Cedefop (2012), Training leave: Policies and practice in Europe.

- In terms of costs**, any initiative involving public resources needs to be funded either through additional taxation/ employers' levies or by steering resources away from other public initiatives. Rational agents within an economy are likely to anticipate such effects, adjusting their behaviour e.g. in terms of expenses on goods or investments. Public investment might displace private investments not only in the domain directly addressed by the policy, but also in any other sector, if it exerts upward pressure on interest rates (e.g. due to higher public debts), or just by affecting the composition of aggregate demand and supply (e.g. due to higher labour costs/taxes or lower subsidies to other sectors). This might depress, with respect to the baseline, several macroeconomic variables including GDP. Such effects cannot be factored in by studies or models focusing only on partial equilibrium effects, that is, the short- or medium-term effects on those directly concerned by the policy. At the same time, individuals increasing their employment chances as examined in partial equilibrium studies (e.g. meta-analysis of counterfactual evaluations of training policies) might be doing so at the expense of other individuals not receiving support (displacement effect). This is clearly acknowledged in Card, Kluve and Weber (2018)⁴⁵⁶, demonstrated in Crepon et al. (2013)⁴⁵⁷, Gautier et al. (2014)⁴⁵⁸ and broadly confirmed by the literature (see e.g. OECD 1996,⁴⁵⁹ Calmfors and Skendinger⁴⁶⁰ and Escudero, 2015⁴⁶¹). Although not strictly speaking a cost, employment growth might also be stifled in the short-term due to sluggish adjustments of labour demand to increased output. This is intuitive if one thinks that, at first, when employees become more productive a fewer number of them are needed to produce the same output. Only later the increased individual productivity will induce employers to hire more as they retain part of the increased productivity through bargaining power.
- In terms of benefits**, there might be a range of positive effects such as increased productivity or changes in the capacity of economies to innovate leading to additional effects such as increased employment and output (GDP), which are not limited to those directly affected by the policy but spread across countries, firms and individuals. The stress here is again on the indirect, second-order effects that over time and across economies materialise as a consequence of the change in behaviour from those targeted by the policy. The literature suggests that in particular for investments in human capital, this longer-term and general

⁴⁵⁶ “We emphasize that the evaluations in our sample have many limitations. At best, these studies measure the partial equilibrium effects of ALMPs, comparing the mean outcomes in a treatment group to those of an untreated control or comparison group.” Card, D., Kluve, J., Weber, A. (2018): [What Works? A Meta Analysis of Recent Active Labor Market Program Evaluations](#). European Economic Association, p. 898.

⁴⁵⁷ Crépon, B., Duflo, E. Gurgand, M. Rathelot, R., Zamora, P. (2013): [Do Labor Market Policies have Displacement Effects? Evidence from a Clustered Randomized Experiment](#), The Quarterly Journal of Economics

⁴⁵⁸ Gautier, P., Muller, P., Van der Klaauw, B., Rosholm, M. and Svarer, M. (2014): [Estimating Equilibrium Effects of Job Search Assistance](#), Journal of Labor Economics

⁴⁵⁹ OCEd (1996): [Enhancing the effectiveness of Active Labour Market Policies: Evidence from programme evaluations in OECD countries](#), LABOUR MARKET AND SOCIAL POLICY OCCASIONAL PAPERS No. 18

⁴⁶⁰ Calmfors, L. and Skendinger, P. (1995): [Does active labour market policy increase employment? – Theoretical considerations and some empirical evidence from Sweden](#), Oxford Review of Economic Policy

⁴⁶¹ Escudero, V. (2015): [Are active labour market policies effective in activating and integrating low-skilled individuals? An international comparison](#), International Labour Office (ILO)

equilibrium dimension of benefits is particularly significant.⁴⁶² The BeTa model estimates structural changes, e.g. employment created structurally in the economy due to more efficient matching between workers and jobs. Put differently, estimates of employment gains from the BeTa model are “net gains” that already take into account possible employment losses related to higher productivity/automation that may result from the policy packages.

General equilibrium modelling therefore provides an important complementary perspective on the likely impacts of additional skills investment, not just at the time of the roll out of the initiative and with a focus on its beneficiaries, but in its longer-term implications and for the economy as a whole.

Nevertheless, some of the limitations of this exercise should be acknowledged. First, the BeTA model does not feature a disaggregation by Member State and generates estimates which should be interpreted as EU-27-level averages. In addition, the full range of differences between the policy packages are often impossible to quantify based on existing evidence.⁴⁶³ Hence, this exercise does not have the ambition to produce a full-fledged comparative assessment of all policy packages. Its goal, as stated above, is rather to inform on the long-term indirect effects stemming from investment in training entitlements and adjusting them based on a few key parameters (size of the target groups, deadweight loss, administrative costs) which vary across policy packages in order to complement the remainder of the analytical framework. In particular, the macroeconomic effects of Policy Packages A1, B1 and B2.1 are examined in Section 3 below. Sensitivity checks are discussed in section 4.

Box 12C.1: The BeTa model

The BeTa model is a macroeconomic model that – in the spirit of the QUEST III-RD model and the above-mentioned RHOMOLO model – adopts the theoretical approach of the product variety semi-endogenous growth model of Jones (1995; 2005). It has a dynamic innovation process, described by the interaction of the choices taken in three sectors (Varga et al., 2013): the R&D sector, the household sector and the monopolistically competitive intermediate sector. Furthermore, based on the fact that in the macro model of Varga et al. (2013) a human capital sector is missing and given also the spirit and the aim of the present study, a fourth sector describing the Human Capital sector was set up. More in the specific for the Human Capital sector is based on Varga et al.’s endogenous growth formulation. Furthermore, the Diamond-Mortensen-

⁴⁶² Recent macroeconomic estimations done by the JRC on EU investments in human capital, suggest that productivity enhancing component of investment in human capital is expected to generate long-lasting positive effects in the medium to long-term, but that in the short term employment and GDP impacts are less visible. “*Looking at the immediate impact of a policy can be misleading as it ignores the cumulated impact on the economy over time. [...] In our simulation exercise the reported cumulative multiplier in 2023 is around 0.6 and increases further, even though ESF investment is discontinued, and becomes larger than 1 in 2030. The main reason behind this result is that ESF is human capital oriented and as such it takes time for its effect to diffuse in the economy, a common feature of supply-side policy interventions.*” Stylianos Sakkas, Andrea Conte, And Simone Salotti (2018): *The Impact of the European Social Fund: The Rhomolo Assessment*. Territorial Development - JRC Policy Insights, p. 3. This is consistent with the literature on returns to training as presented in Annex 10.

⁴⁶³ There is, at present, no hard data or evidence on the quantitative differences between policy package A and B with respect to training participation, productivity and wages that are due to their delivery mode (i.e. delivery through vouchers or a personal account). This is due to the fact that the only broad scope ILA experience in the EU is currently ongoing in France and no counterfactual study could examine its effects, let alone long term effects, as yet. Therefore, the modelling strategy for the two packages focuses on the macroeconomic effects of training entitlements.

Pissarides⁴⁶⁴ search and matching labour market structure allows to account for the interaction of ex-ante investments on HC and costly search in the labour market suggested by Acemoglu.⁴⁶⁵ See B. Beqiraj et al. (2021)⁴⁶⁶ for a recent peer-reviewed article in which a simplified version of the model was presented and used.

The model is based on a hybrid formulation structure which consists in equations partly derived from “hard theory”, partly from “soft theory”.

- Hard theory: the micro foundations (i.e. formal hypotheses on preferences and technology), and inter-temporal optimization under rational expectations (i.e. model-consistent expectations/certainty equivalence) are considered to derive the behavioural equations; and
- Soft theory: general macroeconomic reasoning, supported by statistical information, is used in the specification of the mathematical representation of economic behaviour.

The **model inputs** consist of a rich and large dataset which is required by the estimation strategy. The data that will be used in the estimation stage are: GDP, consumption, investment, imports, exports, wages; the unemployment rate, the rates of change of the price deflators for consumption, import, export, nominal effective exchange rate, the domestic and the monetary policy short term interest rate, labour force, participation rates, data on R&D, and human capital.

The **model outputs** consist of the provision of different socio-economic scenarios. The focus will lie in particular on GDP and employment outcomes as a result of the provision of training entitlements.

2. The modelling strategy

Main impact channels

Based on the current specification of the policy packages (see Section 5.4 and the scenarios developed in part A of this Annex) and their intervention logic, the channels below were used to simulate the macroeconomic effects of training entitlements.

With respect to the **main channels engendering positive effects on employment and GDP**, the first step is an exogenous positive shock to the number of individuals in adult learning, according to the comparative estimations of direct impacts (see Annex 12.A). This is considered a structural change, i.e. training is added on a year-by-year basis and there is no expectation that the policy will be discontinued in the long term. Such exogenous shifts in training participation will, in turn, generate:

- **a positive shock on productivity:** this affects the efficiency of the labour factor in the production technology. Due to rigidities in the labour market, employers retain part of the benefits of the increased productivity, whilst individuals partly benefit from it in the form of a wage premium and increased employment opportunities in the medium to long term. Increases in productivity are factored in as per the review of evidence described in Annex 10 and in Section 12B. They are assumed to be constant across educational attainment levels and type of occupation given no conclusive evidence can be drawn on heterogeneity from the literature, as described in Annex 10.

⁴⁶⁴ Pissarides, C. (2000): *Equilibrium Unemployment Theory*, Cambridge, MA: MIT Press.

⁴⁶⁵ Acemoglu, D., (1996): *A microfoundation for social increasing returns in human capital accumulation*. The Quarterly Journal of Economics 111(3), pp. 779-804.

⁴⁶⁶ Beqiraj et al. (2021), *Fiscal retrenchments and the transmission mechanism of the sovereign risk channel for highly indebted countries*, The North American Journal of Economics and Finance.

Such increases are scaled pro-rata to match the duration/value of the training which can be purchased by the different target groups. While the BeTa model allows for accumulation of human capital over time, this accumulation is limited by skills obsolescence and depreciation of human capital (3% a year, as per the literature reviewed in Annex 10) and an assumption of decreasing marginal returns. Although the evidence in the literature on the question of whether marginal returns to human capital are constant or decreasing is somewhat inconclusive (Annex 10), an assumption of decreasing returns is chosen to present more conservative estimates.

- **positive shock on job matching efficiency:** another channel leading to employment and GDP impacts is that of matching efficiency. Training and validation activities are likely to improve the signal to employers on the skills possessed by individuals and facilitate job mobility. This is confirmed in the literature⁴⁶⁷ and accounted for in the BeTa through a semi-elasticity parameter linking the value of training investment to increases in job matching efficiency.
- The direct costs of additional training entitlements are assumed to be funded through additional taxes. The specific mix of taxes used in the model aims to be neutral as it is fully a matter for the Member States to decide. To ensure neutrality, the shares of taxes by type (labour, capital and consumption) is based on the EU-27 information on taxation trends in 2019.⁴⁶⁸

Although the modelling strategy does not change across the different policy options, the policy packages address different target groups with different training entitlements. They are also expected to entail different operational costs (as indicated e.g. in Annex 12B above). This generates differences with respect to:

- The total financial resources entailed;
- The intensity of training support (value of training entitlements) that the different target groups will receive (i.e. in policy packages A and B2, individuals from priority target groups receive a 50-hour training entitlement per year instead of 30-hour one) and related differential effects on participation rates, wages, productivity and employment chances;
- The overall effects on training participation and thereby productivity, wages and employment chances.

Specific modelling assumptions

The following detailed assumptions are used in determining the exact input data for the BeTa model:

⁴⁶⁷ See for instance Zhang, Y., Salm, M. & van Soest, A. (2021) [The effect of training on workers' perceived job match quality](#). *Empirical Economics*. They identify a 12-25 pts increase (depending on the type of training, excluding post-specific training) in job changing incidence, leading to a positive increase in job matching quality for those changing jobs one year after the training episode. The relationship between general training and job mobility is confirmed in Dekker R, De Grip A, Heijke H (2002) [The effects of training and overeducation on career mobility in a segmented labour market](#). *Int J Manpow* as well as Cheng Y, Waldenberger F (2013) [Does training affect individuals' turnover intention? Evidence from China](#). *J Chin Hum Resour Manag*. Taking into account these effects in the simulation is consistent with the fact that individual training entitlements tend to favour general training for human capital accumulation as opposed to firm/job-specific training (see Annex 11 and the discussion on freedom of choice).

⁴⁶⁸ Taxation Trends in the European Union, 2021 edition, Directorate-General for Taxation and Customs Union, European Commission, Publications Office of the European Union, Luxembourg, 2020.

- training is funded through additional public resources: private resources that are freed through deadweight loss for the public authorities, are reflected in the simulation as higher disposable income for individuals and lower costs of labour for employers;
- additional investment in upskilling activities resulting from voluntary cost-sharing is not considered, in line with the assumptions used in the CBA;
- Decreasing marginal returns over time are assumed⁴⁶⁹ ;
- from a long-term perspective, fixed set up costs are omitted. This is justifiable because from a long-term perspective, one-off costs become negligible. Hence, the focus lies on operational yearly costs;
- the average cost of training for the EU-27 estimate is calculated based on the number of training entitlements redeemed by each target group, in each country, using as deflators for the education sector as per the cost benefit analysis in Annex 12B.⁴⁷⁰ It is therefore a weighted average which adjusts to the amount of entitlements used by each country and target group;
- input data used for this simulation is based on the middle ground scenario for the take up rate of the training entitlements and considers, as net effects on training participation, all the economically relevant additionality in training undertaken (i.e. all the training which would have not been undertaken without the training entitlements);
- wage levels are left free to fluctuate to ensure macroeconomic coherence in combination with the increases in taxes, monetary transfers (training purchased with public resources that would have been purchased through private ones) and effects on the job matching function. This is necessary as all these factors (taxes, transfers and changes to job finding rates) affect the equilibrium value of wages.⁴⁷¹

Table 12C.1: Overview of the main coefficients used for the simulation

	30-hour training entitlement	50-hour training entitlement
Take up rates	18.4%	22% (13.1% for the Low qualified)
Deadweight loss	<i>Middle ground scenario: 22.8%, scaled down by Member State and Target group and then aggregated at the EU-27. It is based on a broad definition of deadweight loss that takes into account some impacts of the policy packages on training intensity (see Annex 12A).</i>	

⁴⁶⁹ This is done to favour more conservative estimates against a background where the rich and wide-ranging literature discussing the issue of returns to scale is not fully conclusive. For a detailed description please refer to Annex 10. Nevertheless, given that it is not necessarily the same pool of individuals who will undertake training every year (given the assumed annual take-up rates of around 20 percent), this might lead to underestimation of the benefits of the initiative.

⁴⁷⁰ Such deflators are included in Sánchez-Barrioluengo, M. (2016): [Expenditure on education in Purchasing Power Standards: A comparison of three alternative deflators](#). European Commission

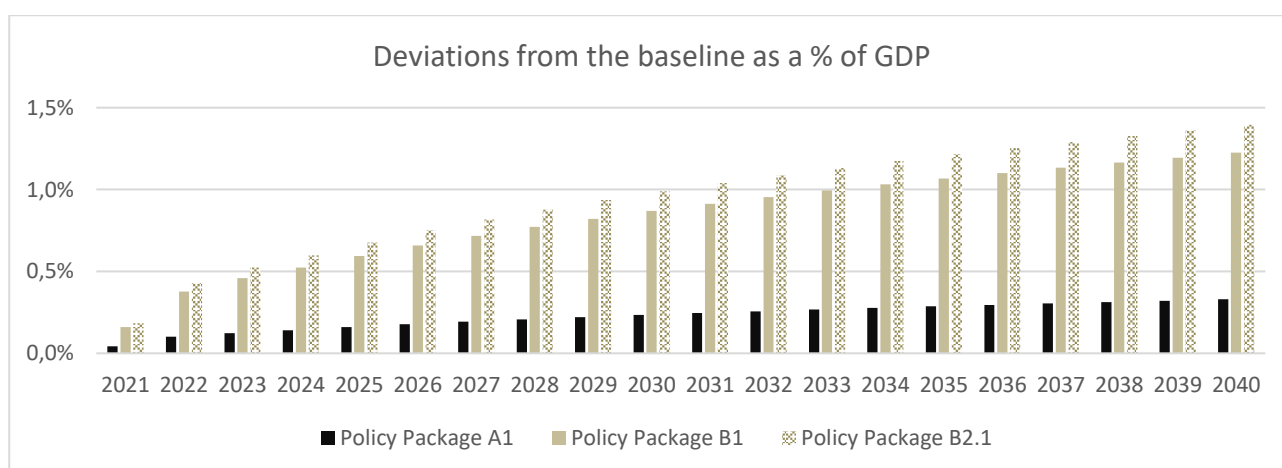
⁴⁷¹ It is worth recalling that estimates discussed in the literature and presented in Annex 10 on returns to training remain partial equilibrium ones (i.e. individual level or firm level estimates, in absence of spillovers). It is therefore appropriate to take a slightly different approach to their estimation in the context of a general equilibrium simulation.

	<i>Sensitivity checks: 0% and 60%.</i>	
Effects on individual productivity	2%	3.34%
Effects on wages	Endogenous variable	
Effect on matching	Semi-elasticity parameter borrowed from the literature on the effect of training on job matching efficiency.	
Cost of the training	EU-27 weighted average: €380	EU-27 weighted average: €645
Composition of taxes	Labour taxes 51.7%, consumption taxes 27.8 %, capital taxes 20.5%	
Operational Costs	They vary with the policy packages depending on the volume of vouchers redeemed as per section 12B: 15% for A1, 8% for B1 and B2.1.	
Accumulation and persistence of investment in human capital	Depreciation of human capital is factored in at 3% per year, as per the review in Annex 10. Decreasing marginal returns to training accumulation over time are calculated based on a cube root function.	

3. Key results

The key results of the analysis carried out through the BeTa model are shown below. The focus lies on estimating the GDP and employment effects of policy packages A1, B1 and B2.1. The aim is thus to capture what is the likely overall macroeconomic and structural impact of providing individuals with training entitlements not just as a one-off measure but over a longer time span on selected macroeconomic variables.

Figure 12C.1 – GDP effects of Policy Package A.1, B1 and B2.1



Source: authors' elaboration based on the output from the BeTa model

Figure 12C.1 above shows that a policy intervention providing individuals with training entitlements **not only creates positive effects for those receiving the entitlements, but also generates structural, long lasting positive effects on the economy as a whole.** This is consistent with recent

macroeconomic estimates produced in the context of the evaluation of similar public investments in education and training.⁴⁷²

In particular, **the largest positive effects vis-à-vis the baseline are measured on GDP**, which is expected to raise considerably, e.g. **by 0.23%-0.99% in 2030 (policy package A1 and B2.1, respectively) and 0.33%-1.40% in 2040** for the same policy packages, as a consequence of the cumulative productivity enhancing effects of training on the economy. Such effects are magnified by general equilibrium dynamics, as higher productivity leads to an expansion in supply which drives an increase in aggregated demand and private investments. Negative effects of displacement from increases in public expenditure are more than offset by the positive effects from increased productivity.⁴⁷³ This is also explained by the fact that the increasing output generates additional revenues for public authorities, allowing the support in subsequent years to be de facto self-financed. These estimates are based on rapidly decreasing returns to scale and take into account the depreciation of the new skills generated by the policy support and can hence be considered conservative estimates.

In the medium to long term and in constant prices, these increases would range from over €30 billion of higher GDP every year (e.g. in 2030 for policy package A1), up to just below. €200 billion every year (e.g. in 2040 for policy package B2.1). These appear to be higher than the benefits calculated by the CBA in the previous section 12B for the same policy packages. These findings place further emphasis on the fact that one key strength of this policy intervention is the multiplicative effect of increased productivity on growth as well as the long-term positive effects linked to the accumulation of human capital with respect to the baseline. This happens despite the depreciation of human capital and the fact that the additional skills accrued are added only partially to the effects on productivity (via decreasing marginal returns to training accumulation).

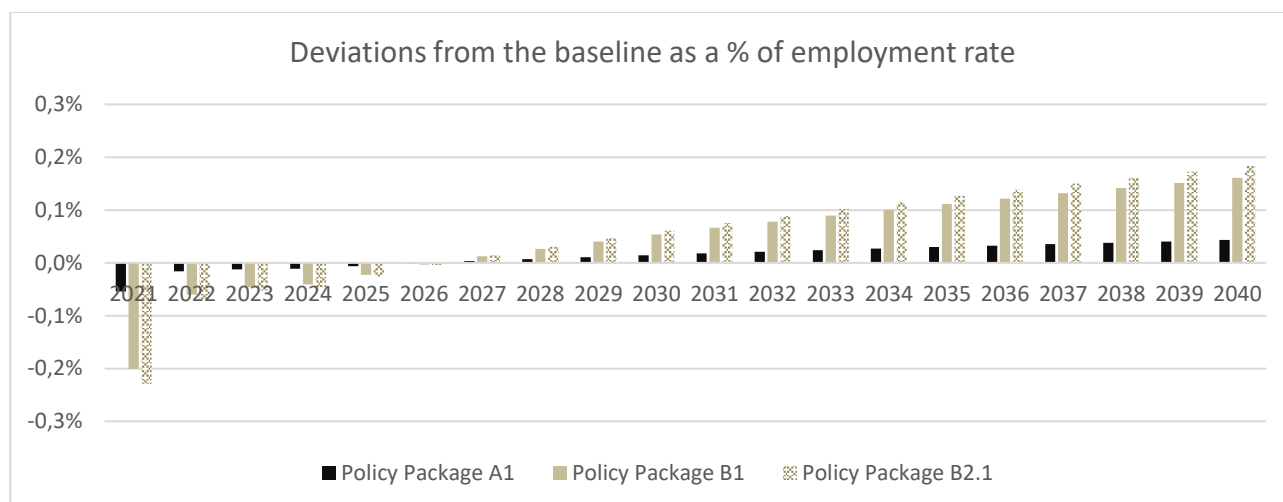
Focusing on the trend of the deviation of GDP from the baseline, all policy packages show a steadily increasing positive impact. This is explained by the cumulative effect of investment in human capital and the recursive nature of the policy packages, offering additional training opportunities to individuals every year. Increases are steeper in the short term as the economy adjusts towards new equilibrium levels where output is increased via a more productive labour force. The deviation of GDP from the baseline continues to stretch, although at a slightly slower pace, as training is continued to be offered to and taken up by individuals across the EU-27.

In terms of comparative effects between the policy packages, these tend to be proportional to the size of the intervention. The main reason for this is that the higher operational costs assumed for a targeted scheme on low qualified individuals are offset by the lower deadweight loss estimated for the same target group. A similar reasoning would apply to policy packages for target groups that are currently underrepresented in training participation.

⁴⁷² See, for instance, the recent evaluation 2014-2018 ESF support to employment and labour mobility, social inclusion and education and training- SWD(2021) 10 final, [Evaluation of the 2014-2018 ESF support to employment and labour mobility, social inclusion and education and training](#), European Commission, p. 36.

⁴⁷³ This is consistent with a macroeconomic framework based on current trends in monetary policies with low interest rates.

Figure 12C.2 – Employment effects of Policy Package A.1, B1 and B2.1



Source: authors' elaboration based on the output from the BeTa model

In terms of **employment effects**, as training is a measure that boosts labour supply and employers retain part of the benefits of such increased supply, a lower number of workers is necessary to produce the same output. In general, whether employment can increase structurally as a result of training tends to depend on whether scale effects are larger or smaller than substitution effects,⁴⁷⁴ see e.g. Escudero (2015)⁴⁷⁵ amongst others. This is apparent in the short term, and particularly in the first year, where employment levels show a negative deviation from the baseline, as rational agents in the economy (i) suffer from increases in taxes to fund the initiative and (ii) anticipate in the productivity shock putting hirings on hold.⁴⁷⁶ However, the ripple of positive effects generated by increased productivity, output and increased demand boosts employment levels from the medium to long term. In addition, in line with the literature review in Annex 9 training is expected to affect employment levels also through changes to job matching, as it facilitates labour market transitions through both signalling effects (e.g. validation of skills, acquisition of certificates) and the provision of skills that are missing in the labour markets (lower skills mismatches). As explained in the working assumptions, such effects are captured in BeTa and contribute to generating structural employment effects. In particular, in the simulation above, medium to long term deviations from the baseline of employment levels **range from 0.01%-0.06% in 2030 (approx. 30 – 140 thousand new jobs in 2030, for policy packages A1 and B2.1, respectively) to over 0.04%-0.18% in 2040 (approx. 100-400 thousand more jobs**

⁴⁷⁴ Scale effects denote the expansion of production which stems from higher labour efficiency and the fact that employers are induced to expand their production, leading to additional hires. At the same time, substitution effects imply that as each individual is able to produce more, a smaller number of them is needed to produce the same output.

⁴⁷⁵ Escudero, V. (2015): [Are active labour market policies effective in activating and integrating low-skilled individuals? An international comparison](#), International Labour Office (ILO) “Moreover, labour demand can be reduced if the scale effect resulting of an increase in the marginal productivity of labour (i.e. that shifts labour demand upwards because a fall of the relative unit cost of labour provides an incentive to expand output by using more efficient units of labour) is dominated by the substitution effect (i.e. arising since one unit of product can be produced by less units of labour)”.

⁴⁷⁶ The first year reflects the sum of a few additional effects: (i) the increase in taxation needed to finance the measure (our working hypothesis is that government do not opt for additional debt – this is done to highlight the self-financing nature of investment in human capital in the long term and in times where public finances are under significant pressure. Governments however may well decide otherwise and this would reduce the negative effect on employment in the first year); (ii) the sudden increase in productivity, that is particularly strong in the first year given that in subsequent year the additional training undertaken increases the productivity only marginally (decreasing marginal returns); (iii) anticipatory effects from rational agents.

in 2040, for A1 and B2.1 respectively). These increases might seem comparatively small against GDP increases, but are still sizable and steadily increasing over time. This finding is consistent with extant literature on the macroeconomic effects of training policies.⁴⁷⁷

As indicated in the methodological section above, it is important to stress that these estimates are based on a holistic consideration of all the costs and side effects (positive and negative spillovers) that are brought about by any public intervention. In addition, these positive macroeconomic performances come on top of several non-quantifiable and/ or non-monetary impacts already described in the report, including increased social cohesion, civic participation, reduced crime rates etc., as per the review in Annex 10.

Overall, the findings from the macroeconomic simulation broadly confirm and reinforce the findings of the detailed CBA in Annex 12B, i.e. that even from a general equilibrium, macroeconomic perspective there exists a clear economic case for substantial investment in up and reskilling. The estimates place further emphasis on the long-term, structural effects of the accumulation of human capital on GDP growth, whilst confirming comparatively small but positive and structural effects on employment rates, in line with the literature of macroeconomic employment effects of training policies.

4. Scenario analysis and sensitivity checks

Rationale and scope of the sensitivity analysis

As highlighted in the analysis above, the significant shock on productivity generated by the training entitlements drives GDP and employment increases in the medium to long run fully offsetting the cost of the investment. The estimates show positive returns for the economy in terms of both GDP and employment and such returns tend to increase over time, thanks to the accumulation of human capital and the ripple of positive effects brought about by higher productivity through the positive interaction between aggregate supply and aggregate demand.

Differences among the policy packages appear proportionally small as their efficiency is similar (losses in administrative costs in A.1 tend to be compensated by lower deadweight in presence of low qualified individuals) and the key driving factor is number of individuals that are triggered to take additional training together with the duration of such training.

To test the stability of these findings against a misspecification of the assumptions, there is an interest to apply some variation to:

- take-up rates; and
- deadweight loss.

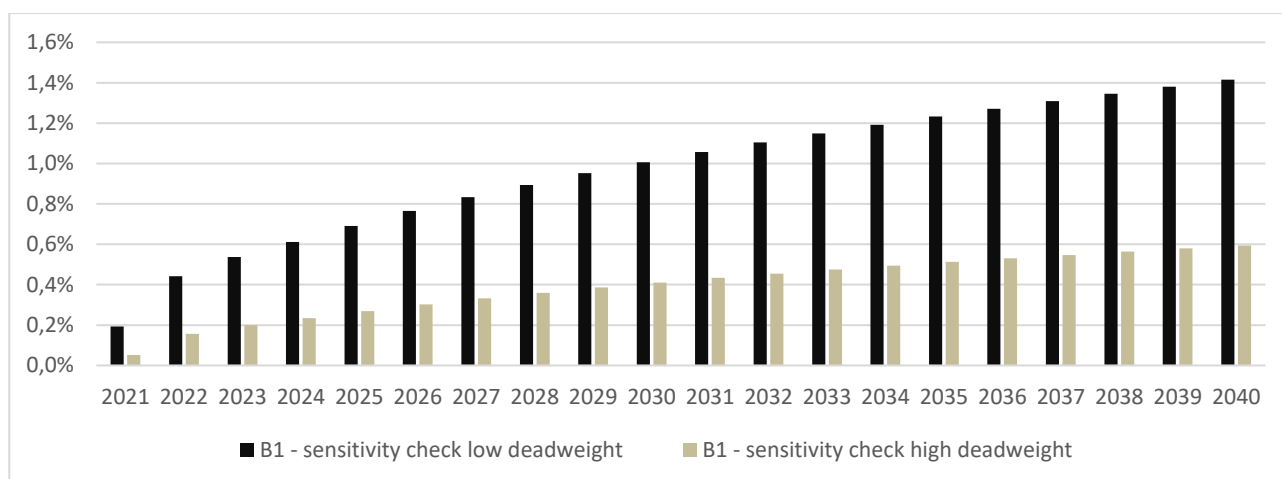
⁴⁷⁷ See e.g. Schmid, G. O'Reilly, J. and Schömann, K. (1996): [International Handbook of Labour Market Policy and Evaluation](#), Edward Elgar, pp. 725– 746. “Labour-supply-oriented measures (including training, workers’ subsidies, supported employment and rehabilitation and job rotation and job sharing measures), are expected to have little, if any, impact on the level of unemployment”, Calmfors L. (1994): [Active Labour Market Policy and Unemployment – A Framework for the Analysis of Crucial Design Features](#), OECD Economic Studies, No. 22; but also the recent impact assessment on the ESF+ from the JRC as in Sakkas, S. (2018): [The macroeconomic implications of the European Social Fund: An impact assessment exercise using the RHOMOLO model](#). JRC Working Papers on Territorial Modelling and Analysis. “We observe that during the whole programming period the effects on employment are small but positive and increasing”, p. 9.

With respect to different assumptions on take-up rates, it can be clarified from the outset that these do not strongly affect the efficiency of the policy under review, but only the volume of additional training purchased. From this perspective, the comparison between policy package A1, B1 and B2.1 already informs on the comparative effects of different take-up rates: the smaller the target group or the lower the take up, the lower the absolute gains in productivity or employment. However, there is no major deviation appearing as long as the share of administrative costs does not become disproportionately high (e.g. in presence of schemes with a few thousand individuals⁴⁷⁸) thanks to the substantial and cumulative gains from increased productivity.

Thus, the following paragraphs will focus on the sensitivity of the estimates to different assumptions on levels of deadweight loss.

Results of the sensitivity analysis

Figure 12C.3 - GDP effects of Policy Package B1 – sensitivity checks



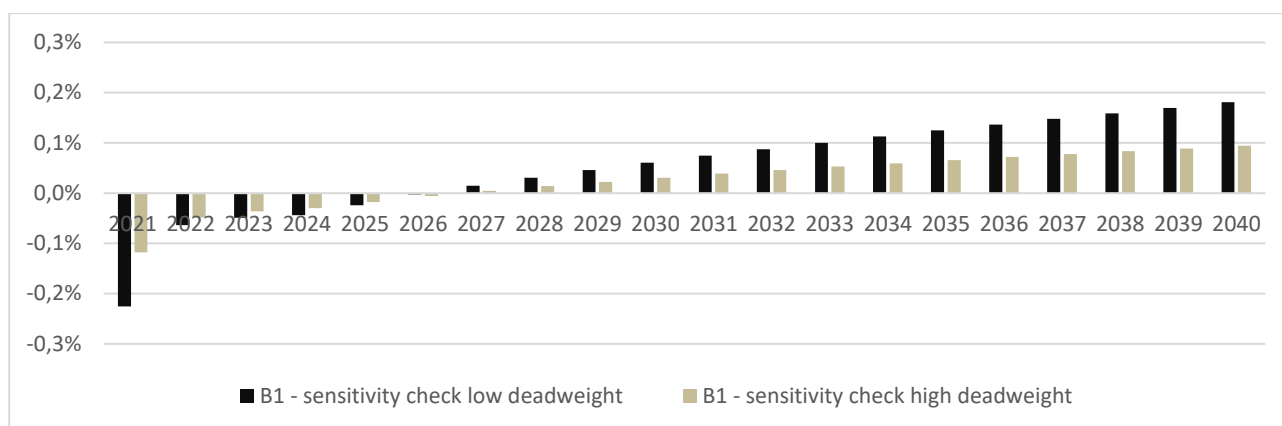
Source: authors' elaboration based on the output from the BeTa model

Figure 12C.3 above displays the trends in GDP effects (deviation from the baseline) for the policy package B1 using two different assumptions on deadweight, respectively 0%, to account for crowding in of private resources in the case of cost-sharing from individuals, top-ups from employers and the impact of training entitlements on future training intentions, and 60%, to account for the possibility of very high levels of deadweight (see the discussion in Annex 12A).

The main finding of the sensitivity analysis is that impacts on GDP remain largely positive even in presence of high deadweight loss. In particular, the short and medium term the (comparatively) small direct effect on productivity due to the (comparatively) small increase in training participation is partly offset by significant transfers to employers and individuals (who are no longer paying for training they would have purchased with private resources). However, such public expenditure mostly boosts aggregate demand in the short to medium term and the long-lasting and structural effects on growth are diminished.

Figure 12C.4 - Employment effects of Policy Package B1 – sensitivity checks

⁴⁷⁸ However, such small volumes are not meaningfully discussed in macroeconomic terms.



Source: authors' elaboration based on the output from the BeTa model

The key finding from the sensitivity analysis illustrated in Figure 12C.4 above, is that the medium to long term employment effects of the policies remain positive even under more pessimistic assumptions on deadweight loss.

The sensitivity checks indicate that employment levels show a pattern similar to that of the main estimates, with negative effects on employment levels especially the first year in conjunction with the strongest increase in productivity, which are progressively re-absorbed in the economy as output grows and matching efficiency is positively affected by the training undertaken.

ANNEX 13: CASE STUDIES

This Annex presents brief illustrative case studies from five EU Member States plus the UK which has operated training entitlement schemes, and also Singapore, which operates an individual learning account. Each case study highlights particular features which can provide a useful guide if Member States are implementing new demand-led training programmes. In most cases the training entitlement is part of a wider adult learning strategy with a range of measures, including registers of approved training, adult guidance systems and quality assurance frameworks. Not all the examples are good practice – there are some which did not meet expectations – and the development periods are also different. For example, the STAP voucher in the Netherlands is not implemented until 2022 but nevertheless provides useful information on scheme set-up. Also, the levels of available data vary between case studies and in some cases new monitoring systems are being established and developed to better capture the outputs and impacts of the initiatives. The French CPF has its own dedicated Annex (Annex 14).

The seven case studies are as follows:

Table A13.1: Case studies overview

Country	Featured Scheme	Summary
Austria	Education Savings	The use of saving schemes to help support individuals to overcome financial barriers to training.
Estonia	Unemployment Insurance Fund	A fund targeted at the unemployed and those at risk of unemployment to help increase rates of adult participation in training.

Greece	Targeted voucher schemes	Vouchers programmes targeted at different groups of unemployed people, different sectors and different parts of Greece, all designed to contribute to improving adult participation in learning.
Italy	Regional individual training entitlements	Individual training entitlements developed at regional level and subsequently adopted in other Italian regions.
The Netherlands	STAP	The new voucher scheme which becomes operational in 2022, replacing a tax incentive scheme.
Singapore	SkillsFuture Credit	Universal but modulated training entitlement scheme that has been developed and applied to changing labour market conditions.
UK	Individual Learning Accounts	The short-lived ILA for England and the subsequent training entitlement schemes for Scotland and Wales.

1. Austria: Education Savings

Education savings are a mechanism that is based on building savings schemes, ie. a low-interest loan for housing and house construction which builds up over time (up to six years) and where saved capital can be used for education and training, amongst other priorities, like care. Some 3.8 million citizens⁴⁷⁹ are part of the building savings scheme although only some 1% release funds for education and training purposes. The origins of education savings dates back to the start of this century with the aim to create a personal provision for ‘people willing to be educated’⁴⁸⁰, and to tackle directly the financial barrier to training. There are guidelines for the use of funds with vocational training and continuing lifelong (vocational) learning. The government aimed for this scheme to be open to all and not targeting specific vulnerable groups, as it was the case for existing voucher schemes. The reality is that funds have been mostly used by more highly educated groups.

Statistics on education savings are limited but the National Bank of Austria (OeNB) estimated that some €4 million were held in loan accounts – for education and to support care commitments – for the first three quarters of 2020. Another building and loan association estimated €6.8 million in 2018 in its loan accounts, less than 0.1% of its total portfolio. Based on these figures, a total loan value of some €20 million could be estimated.⁴⁸¹ Limited data suggests that of some 5 700 loan agreements in 2018, only 0.75% were concerned with education and training. This innovative approach has not met expectations. One reason is that the state premiums for building savings, to which education savings are linked in Austria, are very low and therefore do not provide an incentive. Also, vulnerable groups are often assisted by the PES and often receive free training. A further reason could be the multiple

⁴⁷⁹ In a population of just over 9 million.

⁴⁸⁰

It could also be used by parents and grandparents to provide training funds for their offspring. The funds are therefore transferable.

⁴⁸¹ Extrapolated data from one of the four building and loan associations.

array of training and lifelong learning initiatives at all levels, including training vouchers, whose access is complicated to some extent by regional variations.

2. Estonia: Unemployment Insurance Fund

The **Unemployment Insurance Fund** (UIF), introduced in 2017, includes targeted training courses for the unemployed in line with the labour force and skills needs forecast done by Estonia's national agency OSKA.⁴⁸² It is funded by the Estonian government. The schemes cover the unemployed registered with the PES, those employed but at risk of unemployment due to health reasons or who have no skills, including languages (Estonian), or those who are 50 years and older.⁴⁸³ The Fund is implemented through training cards – a voucher scheme to a maximum value of €2 500, which can be used on more than one course although cannot be accumulated over time⁴⁸⁴ - given to individuals. The cards cover trainings deemed eligible by OSKA (the skills list is updated with a new focus on digital and sector specific ICT skills).⁴⁸⁵ Career counsellors play a key role in advising and guiding individuals to a training course, though the UIF training cards can also be accessed by an online platform.

The number of participants has increased from 900 in 2017 (just 8 months of the year) to 3 000 in 2018 and 5 700 in 2019. 84% of all participants in the first two years were women and 60% of all participants in this period were aged 25 to 49, 38% being 50 years or older. The most popular courses are language courses and digital/ICT skills courses.

The UIF has yet to be formally evaluated, but a new monitoring system is being introduced to see how individuals have used the training card (is it in their own sector for example? Is it in a sector that is deemed to have a lower risk than the one they are/were in?). In the 2017-2019 period, there had been an increase in participation among the groups targeted by the UIF, twice the increase for the people with low qualifications or educational attainment compared to those with secondary or tertiary level qualifications⁴⁸⁶ and whilst a direct correlation has not yet been proven, the UIF has claimed a contributory role. Awareness raising campaigns encouraging individuals to participate in adult

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OSKA skills forecast is part of the OSKA programme, launched in 2015 by the Estonian Government as a measure to contribute to the objectives of the Estonia 2020 Strategy, in particular to enhance employment and productivity. The main aim of the programme was to reduce the skills' mismatch and to facilitate stakeholders' cooperation. (Source: <https://ec.europa.eu/social/main.jsp?catId=1080&langId=en&practiceId=81>).

⁴⁸³ There is also a category for those working in the oil shale sector.

⁴⁸⁴ There has been some debate around the implementation of individual learning accounts but this has not evolved due to concerns about the administrative complexity of operating an ILA. See also Järve, J.; Räis, M.-L.; Seppo, I. (2012). *Erialase tasemehariduseta isikute osalemise elukestvas õppes*. [Participation in lifelong learning of people with no professional qualifications]. Tallinn: Estonian Applied Research Centre CentAR.

⁴⁸⁵ There is a freedom for the individual to choose a course of the type and duration of their preference but it is not a fully free choice and is guided by careers counsellors as well as training that meets the country's skills needs. Languages aside popular courses have included driving skills, hair and beauty and teaching.

⁴⁸⁶ Some 20% compared to 10%.

learning – including also specific campaigns to promote the UIF have also played a role.⁴⁸⁷ Growing interest in adult learning has been reported across all labour market groups.⁴⁸⁸

Further refinements to publically funded training are envisaged as the lessons from the current scheme are learnt. One concern is that the quality and labour market value of courses require further testing with mandatory guidance under consideration, which is already part of the UIF⁴⁸⁹. In addition, and as described in the work plan for 2021, the Ministry of Education and Research plans to develop the principles of the skills portal and digital story (*täiskasvanute oskuste digilugu*) for adults and the concept of micro-credentials by the end of 2021.⁴⁹⁰

3. Greece: Targeted training voucher schemes

The Greek voucher system was first introduced in 2012 and targets specific sub-groups of unemployed by offering vocational training in specific areas.⁴⁹¹ Vouchers were introduced to replace the previous system under which training was provided only by providers who had individual agreements with the Ministry of Labour. That system was considered insufficient due to its complexity, high administrative costs, delivery delays and lack of transparency.

The main objective of training vouchers is to achieve a structured path of training, which could contribute to the entry of the unemployed into the labour market. Since the implementation of the voucher system, there have been 20 voucher schemes⁴⁹², all of which have been co-funded by the ESF, with a combined budget approaching €500 million. Though the format and length of the training offer differ in each scheme, the training provided by the voucher schemes generally include theoretical training (typically around 120 hours but up to 600 in some cases) in life-long learning (LLL) centres followed by practical training in a company or in the public sector (typically around 200 hours but up to 800 in some cases). Many schemes also include counselling offered by the LLL centres.

The vouchers cover all training expenditure and provide participants with a training allowance for both the theoretical and practical training; this helps unemployed participants overcome financial constraints. By allowing participants to choose the content of training and the training provider (both need to be certified), it is expected that a higher quality of training and services by providers will be achieved through competition among providers to attract participants. At the same time, although it

⁴⁸⁷ 44% of adults rated the availability of information concerning adult learning opportunities to be good or very good. See Räis, M. L., et al. (2014). *Põhi- ja tasemeharidusest täiskasvanute tasemeharidusse tagasitoomise toetamine. Eesti Rakendusuringute Keskus CentAR*.

⁴⁸⁸ Interview with the Ministry of Education and Research.

⁴⁸⁹ A recommendation in the mid-term evaluation of the lifelong learning strategy by the Praxis Center for Policy Studies (2019).

⁴⁹⁰ Ministry of Education and Research, (2021). *Haridus- ja Teadusministeeriumi ning Haridus- ja Noorteameti 2021. aasta (arendus) tööplaan. (Work plan of the Ministry of Education and Research and the Education and Youth Authority for 2021)*.

⁴⁹¹ The Greek Training Vouchers are most similar to a service voucher. Moreover, they were described as mainly oriented towards the unemployed. For these reasons, these vouchers have not been selected for representation in the CEDEFOP database <https://www.cedefop.europa.eu/en/publications-and-resources/tools/financing-adult-learning-db>

⁴⁹² excluding voucher schemes for the 15-24 cohort

is not a direct objective of voucher schemes, such a programme can contribute to eliminating time constraints. Indeed, vouchers may help participants to obtain the needed flexibility by choosing the training provider and training path that best suits their needs. To improve information, details of all voucher schemes can be found on the dedicated website⁴⁹³ as well as on the website of the national public employment service.⁴⁹⁴ The presence of certification can enable unemployed individuals to signal their improved skill status in the labour market, emphasizing the additional competence they acquired and removing a prior asymmetry of skills between themselves and employers.

Overall voucher schemes can be separated into several groups with similar characteristics⁴⁹⁵: 2 schemes targeting young NEETs aged up to 29; 8 schemes for participants in public works measures mainly in administrative regions with high unemployment rates; 3 schemes targeting ex-employees of specific enterprises; 2 schemes offering ICT training to graduates with scientific, technological or economic background; 2 schemes aiming to improve technical skills in certain cutting-edge sectors (i.e. in sectors with growth prospects like trade, logistics, tourism, information and communication technologies, solid and liquid waste management, food/beverages, energy, industry, agriculture etc.); 1 scheme available only to residents of a specific administrative region (Elefsina) targeting those aged at least 45 and who are unemployed for at least 6 months; and 1 scheme focusing on the training and certification of unemployed loaders.

The bill of December 2020 aims to upgrade the education and training provided in terms of structures, procedures, curricula and certification, in particular to address the fact that the issue of quality has emerged as one of the major impediments to participation.

4. Italy: Regional individual training entitlements

The *Carta di Credito Formativo Individuale* (CCFI) is an individual training entitlement adopted in Tuscany and later in Umbria and Piedmont.⁴⁹⁶ The CCFI is a prepaid credit card (worth up to €2 500) that allows individuals to receive a financial contribution to cover partially or totally the costs incurred for the implementation of a personal training project.

The key aim is to promote and encourage the training of individuals throughout their life, thus overcoming some of the limitations affecting standard training tools and practices (lack of time to devote to the training, problems related to work-life balance, financial barriers, lack of exhaustive information on the local supply of training, poor efficiency of the training-related public services, lack of community support). The flexible nature of the CCFI allows cardholders to distribute the resources provided by the card among the courses that they consider most suitable for their needs. Such flexibility goes hand in hand with a tailor-made support provided by the public employment centres' personnel in terms of advisory and counselling services, which aims at helping CCFI beneficiaries make the best use of the potential of the card. In particular, the employment centre

⁴⁹³ <http://voucher.gov.gr>

⁴⁹⁴ <https://www.oaed.gr/>

⁴⁹⁵ Evaluation reports are not yet publically available

⁴⁹⁶ The measure was introduced in 2004 till 2015. All types of training were allowed in the initial period (between 2004 and 2007), including informal training. Subsequently (2008-2015), training courses were listed on a regional catalogue of approved programmes to avoid misuse of public funds.

personnel helps people choose the career path to take, set goals that are actually achievable given their background and professional experience, and ensure an effective and timely match between demand and supply of training services.

The CCFI identifies priority groups as women, non-standard employees, immigrants, etc. The distribution of resources among target groups is arranged at provincial level. Such approach reflects the attempt to combine, on the one hand, the promotion of personalised training activities and, on the other, the support of social groups having specific needs or facing a higher level of socio-economic vulnerability. To effectively support these target groups, the card, unlike most of the existing tools as the standard training vouchers, has the feature of also financing services which are only indirectly connected to training but that might affect the decision to select and undertake a certain course. For example, the CCFI can be used to pay babysitters or caregivers. This CCFI feature is particularly important to encourage individuals bearing most of the family care burden to seize the opportunity of a training course which can, in turn, increase their employability and/or income.

In addition, to attract individuals who may be reluctant to come back to the traditional classroom-based education, the CCFI can be also used to pay for ‘informal’ training activities, e.g., non-institutionalized training which can take place almost anywhere within the family, with friends, at work or at facilities made available by education and training providers. With a view to ensure that the selected activities are consistent with the CCFI’s holder background and in line with the very aim of the instrument, participants are guided by employment centre counsellors in charge of validating their choice.

The results⁴⁹⁷ of this experimental initiative highlight that, as for the participants’ satisfaction, 71%⁴⁹⁸ of card holders declared that the training activities met their expectations in terms of quality and effectiveness. The percentage of those reporting a good level of satisfaction concerning the matching between training contents and personal/work needs was also quite high (53%). With regards to the occupational outcomes, 66% of the sample believe that they have improved their professional condition, and of this 66% almost the entire sample recognizes the usefulness of the CCFI for the purpose of improving their professional condition.

Detailed data on the total number of CCFI holders is not available. There were approximately three thousand CCFI beneficiaries between 2006 and 2008 in Tuscany (only the provinces of Pistoia, Arezzo, Prato), about half of the holders (51%) is aged between 25 and 35 years while about 33% is over 35 years old. For what concerns their educational level, the most common qualifications of the CCFI holders are the High School Degree (32%) and the Master Degree (36%). After having benefited from the service, the number of participants with Professional School Diploma and Postgraduate Education Diploma increased, going from 8% to 14% in the first case and from 4% to 27% in the second case. Regarding the employment profile of the beneficiaries, alongside a significant percentage of unemployed (about 39%), a significant share of inactive people (33%) is also included in addition to a 16% of atypical and 8% of workers in transition (on the move or just

⁴⁹⁷ Ministero del Lavoro et al. (2008), [*Carta ILA: i principali risultati della sperimentazione*](#).

⁴⁹⁸ The survey has involved all beneficiaries who at the time of the interview had completed training activities financed by the CCFI. It reached a response rate of 66%, i.e. 239 beneficiaries out of a sample made up of 363 recipients initially contacted.

laid off). The training sectors in which the largest number of CCFI funded courses are concentrated is the post-graduate and high training field including the area of socio-educational services, the foreign language sector, office work and information technology.

5. Netherlands: The STAP - from income tax deduction towards individual training entitlements

The Netherlands introduced in 2018 an inter-ministerial programme for lifelong development, which sets out the main policy orientations for the coming years. The programme has the ambition to increase the demand for adult learning by individuals directly by, on the one hand, offering individual financial incentives and on the other hand, increasing the flexibility of the VET and HE offer, amongst others.

Initially, the previous government planned to give every citizen in the Netherlands the same skills development budget from the government at birth by means of an individual learning account.⁴⁹⁹ This budget would have been partly spent on initial education. The higher the initial education, the lower the learning rights that remain when entering the labour market (and vice versa). In this way, publicly available education and training budgets would be more equally distributed amongst citizens, assuring that budgets are allocated to groups in greatest need. It was planned that employers would also be able to provide training contributions into the development account. Already in 2001-2003 a pilot of an Individual Learning Account was undertaken in the Netherlands⁵⁰⁰ that reported positive effects on learning behaviour and attitude.⁵⁰¹

Finally, **this individual learning account was not implemented for several reasons** related to the technical implementation, legal aspect, and available budget. The development of a system of learning rights, in which for every citizen the available budget and training history should be monitored, was considered a very demanding and complex ICT operation. Moreover, the budget available was not considered sufficient to provide every citizen a reasonable amount to increase training take up. In addition, with these small amounts, private banks were also not interested to cooperate and invest, setting up an account scheme. Finally, there were legal concerns about the legal ownership of the learning right. As a result, the government has decided to introduce a new training allowance scheme, the **STAP budget** (Dutch acronym for *Stimulerend Arbeidsmarktpositie*, or Incentive Labour Market Position), to better empower individuals to take control of their learning careers more actively.

⁴⁹⁹ 24% of the 5.6 million employees that are part of the collective labour agreement have a personnel learning and development budget (around 1.3 million employees). These budgets are paid by the employers and employees with the support of the levy.

⁵⁰⁰ Anna Geertsema, et al. (2004): Experimenten met individuele leerrekeningen: de balans opgemaakt. 's-Hertogenbosch: CINOP. In the pilot for 2 500 low qualified employees a learning account was established on which the government contributed €450. The employee, employers and others could contribute to this account as well.

⁵⁰¹ In the Netherlands, there are also private companies that provide Individual Learning Account services to individuals, such as the James Learning Account, where employers could transfer budgets on the learning account, and the learner could select a training via de catalogue of learning providers.

At the same time the **Dutch government supports existing private individual learning accounts** that are increasingly made available by private parties such as social partners, sectoral training funds and employers. According to recent research, approximately 1.3 million (24%) of the 5.6 million employees covered by collective bargaining agreements had an individual learning and development budget in 2017.⁵⁰² The government is encouraging the development of private learning budgets by clarifying the application of the current framework for the fiscal treatment of training costs to these budget, so employers could contribute to the private learning accounts. The Tax Authority has developed an information tool for this purpose.⁵⁰³

The STAP budget is introduced to **replace an existing tax incentive scheme**, in which individuals could request tax credits for costs for participating in adult learning. The tax incentive scheme had a comparatively high limit (€15 000 per individual) but did not produce a tax credit for the first €250 spent. An evaluation of the tax incentive concluded that the tax measure did not substantially contribute to stimulating participation of individuals and underperformed particularly for lower income families. A total of 2.6% of the Adult population of working age made use of the credit, for an average of €1 700 per year. Applicants were more often higher educated and in permanent fulltime employment was mostly used by individuals who would in most likelihood have paid for the training courses themselves anyway (deadweight loss⁵⁰⁴). It was calculated that the marginal deadweight loss - i.e. the part of an extra euro training deduction that does not lead to extra training - amounted to between 73 and 100%, depending on the group and the tax rate. One of the reasons mentioned of the low use amongst lower educated and unemployed is the fact that trainings still need to be pre-financed without certainty whether it can be deducted from tax payment (in case low or no income).

The STAP scheme will **offer all adults the possibility of spending up to €1 000 per year on training**. The financial amount of €1 000 is backed up by a study of the Netherlands Institute of Social Research (2018) *Grenzen aan een leven lang leren* (Barriers to Lifelong Learning), that concluded that in most cases an amount of €500 to €2 000 is sufficient to remove the threshold of the costs of following training activities. Moreover, the average amount for training used in the tax reduction scheme was €1 700, and in view of the personal contribution under the current tax system (dependent on the relevant tax bracket), the maximum amount of the STAP account is higher than the average subsidy for the fiscal deduction of training expenses.⁵⁰⁵ Moreover, 82 % of all training costs applied for in the tax reduction scheme is below the €2 500. Many shorter training programmes can be paid for in this way and for those who want to follow an extensive training programme, the personal contribution is reduced sufficiently so that the costs are no longer perceived as a barrier. Although other schemes, such as the temporary scheme for education for occupations that have a shortage of labour (*Tijdelijke regeling subsidie scholing richting een kansberoep*) have a higher amount of €2 500 per person, for the STAP budget it was decided to keep it lower to increase to outreach of the scheme, given the available budget, to 200 000 beneficiaries per year. The actual take up will probably be higher since most training cost less than €1 000. Moreover, it was argued that a

⁵⁰² Ministerie van SZW (2019) Individuele ontwikkelbudgetten in cao's in 2017.

⁵⁰³ <https://download.belastingdienst.nl/belastingdienst/docs/cao-alg-scholingkost-lh-on7251z2ed.pdf>

⁵⁰⁴ CPB (2016), [Evaluatie aftrekpost scholingsuitgaven](#).

⁵⁰⁵ CPB (2016) Evaluatie aftrekpost opleidinguitgaven.

larger budget, could also have a negative distorting effect on the market prices for training (this will be monitored and evaluated after some years).

Beneficiaries can apply for the STAP budget once a year during six time periods. Beneficiaries can apply for the STAP budget once a year during six time periods. **The STAP aims to facilitate multi-year training with multiple payment dates**, but this is not possible yet in the first years of implementation of the scheme in which the STAP budget will be implemented in its rudimentary form, since it takes time by implementation partners to implement additional features. The idea for the future is that the initial application can indicate that it concerns multi-year training, with a maximum budget of €1 000 for each training year. If the initial application is granted, a follow-up application can be submitted for each payment moment during the multi-year training. If the budget for the period concerned is exhausted, the assessment of follow-up applications is postponed to the next period. These applications will therefore be given priority in the assessment of that next period.

A low threshold for applying for the STAP budget is an important starting point. Individuals can therefore apply for this subsidy online (with their digital ID) via a simple digital form, where the various conditions for the STAP budget are immediately checked. Before a participant can apply for the STAP account, it is important that the applicant selects the training activity he or she wants to follow and registers with the trainer. The list of training activities is provided in an online register. The training provider will then give the participant proof of application. This certificate must be enclosed with the grant application. For people for whom it is not possible to go through the application process digitally, there is a provision at the UWV⁵⁰⁶ to support these people in the application process (by telephone or at the office). The budget will be directly transferred to the training provider, based on earlier experiences with training vouchers schemes in 2016-2017 where the budget was directly transferred to the bank account of the learner, where it appeared that in 3% of the cases the budget was not used for training, and 6% of the cases it was only partly used for training.

The learner must complete the training activity with a diploma or certificate, or to have attended the course for at least 80% of the duration. This attendance rate must be demonstrated by the certificate of participation that the training institute provides within 6 months after the end date of the training activity. If none of the results are achieved, the subsidy can be reclaimed.

The current STAP budget is presented as a scheme for all. No specific measures are included that assures a match between the skills set of the individual, individual and labour market needs, and the learning offer. Also, no specific measures are proposed to strengthen the outreach to vulnerable groups. During the interviews, it was indicated that this is considered as one of the biggest challenges. Currently, the Netherlands aims to make the online application process as easy as possible, and they will open a call centre for questions. In the future, the government is considering integrating guidance and counselling services in the schemes, but this is currently left out (included in the initial design of the scheme). Currently the government is running a temporary voucher scheme for career guidance (*Nederland Leert Door!*) of €700, though this is not connected with the STAP budget, but can be combined. Interviews point out that obliging participants to undertake guidance and counselling

⁵⁰⁶ UWV (Employee Insurance Agency) is an autonomous administrative authority and is commissioned by the Ministry of Social Affairs and Employment to implement employee insurances and provide labour market and data services.

activities before starting the training could also demotivate applicants to apply, especially those not easy to reach. The government is also thinking about adjusting the financial amount in the future for training for professions that have a labour market shortage or for greening professions.

It is to be noted here that neither the STAP, nor the register of training providers is yet operational; the objective is to start implementation in 2022. This also means that possible conditions may still be revised before it is formally launched. The STAP budget scheme will run for 5 years, but the plan is to make it an integral part of policies after 5 years.

At this moment, the financial scope of the STAP budget is planned to be kept like the budgetary reservation of the expiring tax incentive scheme, set around **€200 million annually for training costs**. While the STAP budget offers in theory the possibility to all individuals in the Netherlands to make use of the scheme, it is not expected that this will indeed be the case. There are no provisions to increase the allocated budget in case take-up proves higher than expected. Nevertheless, the explanatory memorandum of the STAP-budget indicates that an infrastructure is created allowing for quicker and simpler deployment of any additional public budgets that may become available in the future - for certain goals or target groups. This contributes to further bundling of public resources and reducing fragmentation of implementation modalities in the field of lifelong learning.

To estimate the structural annual costs for implementing the STAP scheme (in addition to the 200 million Euro training budget) an analysis was made by the implementing bodies UWV⁵⁰⁷ and DUO⁵⁰⁸ (uitvoeringstoets' or 'implementation test'). The structural costs for UWV are estimated at €21.5 million a year. This includes the cost for maintaining the **online platform** (€3.9 million), **housing costs** (€0.7 million) and **staff costs** (€16.9 million). For the staff costs, UWV indicated that yearly 161 fte is needed for implementing this scheme (setting up a new dedicated unit within UWV). The annual cost for maintaining the **education register** are estimated at €70 thousand in the first year (2022), €46 thousand in the second year (2022), and €35 thousand from 2014 onwards. **The total estimated structural annual costs of UWV and DUO together are €21.5 million.** This is more than the planned costs of 18 million Euro as included in the STAP regulation. It was agreed between the ministries and implementing agencies that in the end of the first year of implementation, based on actual costs, budgets will be adjusted if needed.

To estimate the **one-off costs for setting up and running the voucher scheme** the analysis of UWV and DUO shows that the one-off costs for setting up the scheme for the UWV are estimated at €18.2 million (€7.2 million in 2020; €10.6 million in 2021; and €0.4 million in 2022)⁵⁰⁹. This is including the costs for setting up the online platform for STAP budget, which is estimated at €12.12 million, but does not include the costs for setting up the training provider register by DUO at €2,5 million (25,159 hours work estimated). **This makes the total one-off costs for setting up the scheme €20.7 million (€18.2 million + €2,5 million).**

⁵⁰⁷ UWV (2019). Uitvoeringstoets subsidieregeling leer- en ontwikkelbudget voor stimulering van de arbeidsmarktpositie (STAP-regeling). 5 November 2019.

⁵⁰⁸ DUO (2020). Uitvoeringstoets STAP-Regeling.

⁵⁰⁹ UWV (2019). Uitvoeringstoets subsidieregeling leer- en ontwikkelbudget voor stimulering van de arbeidsmarktpositie (STAP-regeling). 5 November 2019.

Value of training purchased	One-off costs	Recurrent adm. costs
€200 million p.a	<p>Total one of costs is €20.7 million</p> <ul style="list-style-type: none"> • UWV: €18.2 million (€7.2 million in 2020; €10.6 million in 2021; and €0.4 million in 2022) • Online platform for STAP budget: €12.12 million (is part of the UWV budget of 18.2 million) • Training provider register (DUO): €2.5 million 	<p>Total annual recurrent cost is 21.5 million</p> <ul style="list-style-type: none"> • Staff costs: €16.9 million (161fte) • Housing costs: €0.7 million • Online platform: €3.9 million • Education register: €70 000 in the first year (2022), €46 000 in the second year (2022), and €35 000 from 2014 onwards

The compliance costs for providers relate to the registration and updating of the necessary information about training in the training register and the production and sending of the certificate of participation per participant by the training provider. The government estimates these compliance costs to be one-off €90 000 (€2 000 X 1-hour costs for the administrative assistant at €45 for registering the training register) and annual €1 965 000 (2 000 X 1-hour costs for the administrative assistant at €45 for periodic costs for keeping the training register up to date + €250 000 X 10 minutes costs for the administrative assistant at €45 per hour for the certificate of participation). Furthermore, it is estimated that it takes the applicant about 10 minutes per application to fill in the required information. Assuming 250 000 applications (based on an average subsidy of €800), the administrative burden comes to €625 000. In cases 40% of the applications involve training that costs more than €1 000, the administrative burden for the trainer is estimated at approximately €3.4 million (100 000 x 45 minutes of administrative assistant time at €45 per hour).

The current conditions considered seek to strike a balance between ensuring quality and preserving flexibility by allowing for a certain degree of decentralisation/creating “alternative routes” into the registry, including, e.g., a recognition by branch or sector organisations. At the moment, the following conditions are set for training providers to be included in the registry: (1) the training provider is recognised by the Dutch Ministry of Education, Culture and Science, (2) the provider has a quality mark (NRTO), (3) the providers offers training that is classified in the national qualifications framework (NLQF), (4) there is a sectoral/branch recognition of the provider, (5) the provider is recognised by the National Knowledge Centre (RPL). The quality framework for STAP is currently being prepared but there will be audits/studies to test compliance. In the meanwhile, a small group of agencies has been accredited as providers of quality assurance to STAP. Given the STAP project is planned to be launched in 2022, it is not possible to provide an assessment of the impact.

When the subsidy applicant fails to meet his/her obligations on the grounds of the subsidy rules (for example by not successfully completing the training and not meeting the attendance requirement), the participant can be excluded for a maximum period of two years from submitting an application for a STAP subsidy. The duration of the exclusion depends on the severity of the offence.

6. Singapore: SkillsFuture Credit - using personal accounts for a universal yet targeted provision of training entitlements

The **SkillsFuture Credit** (SFC) was introduced in 2015. The central features of the SFC scheme are threefold: (i) *giving individuals the autonomy and flexibility to decide about their training needs and goals* by not prescribing how the credits should be used; (ii) *to encourage working adults to be active learners and to invest in their continued learning journey* - SFC beneficiaries have generally completed their full-time education and are in the workforce or preparing to join the workforce; and (iii) *SFC can be used on top of existing Government course subsidies for a wide range of approved skills-related courses*, hence training is made even more affordable with the use of SFC.

The SkillsFuture Credit of \$500 (€312) is given to all Singapore citizens aged 25 and above. It is not time expired and there are periodic top-ups from the government. Citizens can use their credits to claim from a wide range of SkillsFuture Credit eligible courses as well on top of existing government course subsidies to pay for the range of skills-related courses approved by SkillsFuture Singapore (SSG). In 2020, more than 188 000 Singapore citizens utilised their SkillsFuture Credit, an increase from 156 000 Singapore Citizens in 2019, who could choose among roughly 28 000 SkillsFuture Credit-eligible courses courses⁵¹⁰ in a wide range of training areas (e.g. Information and Communications, Personal Development, Pharmaceutical and Biotechnology etc.). As of end-August 2020, about 600 000 or 23.5% of eligible Singaporeans had utilised their SkillsFuture Credit (SFC). The latest available data for the breakdown by age groups is as of end-2019: the utilisation rate was approximately 16% among Singaporeans aged 60 and above, and around 22% among Singaporeans aged 25 to 39 years old and also 40 to 59 years old.⁵¹¹ Since the launch of the SkillsFuture movement, there has been an increase in the annual training participation rate which cannot be attributed to just the SFC initiative but to in combination with wider skills policies. For instance, a Skills and Training Advisory services was set up to provide skills and training needs support for individuals at various stages of their career, recommending suitable courses and programmes.

⁵¹⁰ Data provided by the Ting Sze Yun, Strategic Planning Division - [SkillsFuture Singapore](#), July 2021.

⁵¹¹ [SkillsFuture credits utilisation data](#) (2021).

Courses that are eligible under SFC include open online courses offered by training providers such as Udemy⁵¹², Coursera⁵¹³, Udacity⁵¹⁴ and edX⁵¹⁵, which allow individuals to learn at their own pace and convenience⁵¹⁶. There is a wide range of SFC approved courses offered by both local and online providers listed on the SFC course directory, and all of them have been pre-approved by SkillsFuture Singapore (SSG). SSG has put in place a set of guidelines that must be met before courses can be approved and added to the SFC course directory. Key course eligibility criteria include: (i) courses must be skills-related and have clear and relevant learning outcomes, (ii) courses must be open for individual registration (i.e. not restricted to employer-sponsored trainees), as well as (iii) courses with a total duration of at least 7 hours (excluding assessment and lunch) may be broken down into modules.

As a consequence of the pandemic, two SkillsFuture Credit top-ups were introduced in 2020. Unlike the broad-based SkillsFuture Credit, the top-ups were designed to expire in five years' time to encourage timely actions by individuals in reskilling and upskilling. First, a **one-off SkillsFuture Credit top-up** of \$500 was given to all Singapore citizens aged 25 and above as at 31 Dec 2020. The top-up can be used on a wide range of skills-related courses, on top of existing government course fee subsidies. A further one-time \$500 credit was given in the form of **additional SkillsFuture Credit (mid-career support)** to all Singapore citizens aged 40 to 60 (inclusive) to target citizens who are most likely to require retraining or upskilling. The additional SkillsFuture Credit can only be used on selected training programmes that support career transition (e.g. SGUnited Skills Programme (SGUS), SGUnited Mid-Career Pathways Programme – Company Training (SGUP – Company Training) and Career Transition Programmes).

Although no data is currently available about the utilisation rates of these top-ups, the training participation rate for the resident labour force aged 15 to 64 held up (49% in 2020, similar to a year ago) despite restrictions placed on in-person training due to the pandemic, as more people relied on online learning solutions.⁵¹⁷ Thanks to the above mentioned top-ups and the support programmes for career transition, training industry rebounded and companies increased their efforts to re-train their workers during the pandemic period. Similar to what happened during SARS, the training uptake was very high whenever there was a downturn, because people went into very intensive training.

⁵¹² [Udemy](#) is a massive open online course (MOOC) provider aimed at professional adults and students. As of April of 2021, the platform has more than 40 million students, 155 000 courses and 70 000 instructors teaching courses in over 65 languages. There have been over 480 million course enrolments. Students and instructors come from 180+ countries and 2/3 of the students are located outside of the U.S.

⁵¹³ [Coursera](#) is a massive open online course provider (MOOC) founded in 2012, providing online courses, certifications, and degrees in a variety of subjects. As of May 2021, Coursera is partnered with more than 200 institutions around the world and offers over 3 000 courses.

⁵¹⁴ [Udacity](#) is an online learning platform with over 160 000 students in more than 190 countries enrolled in 2021.

⁵¹⁵ [edX](#) is a massive open online course (MOOC) provider created by Harvard and MIT. As of 20 July 2020, edX has around 33 million[6] students taking more than 3 000 courses online.

⁵¹⁶ <https://www.myskillsfuture.gov.sg/content/portal/en/index.html>.

⁵¹⁷ Ministry of Manpower-Manpower Research and Statistics Department (2021), [Labour Force in Singapore 2020 \(mom.gov.sg\)](#)

The assessment of the SkillsFuture Credit identifies some lessons learnt for future initiatives in terms of i) providing beneficiaries with clear evidence and detailed information in order to make informed decisions about their training choices, and ii) helping citizens, enterprises and training partners (Institutes of Higher Learning) to have the required job-skills insights and training support and iii) being prepared to adapt the initiative in the light of market changes, uneven take-up rates and in this case, the aftermath of the Covid-19 pandemic.

7. UK: Individual Learning Accounts

ILAs were introduced in England in September 2000.⁵¹⁸ Their aim was to increase adult skill levels, and to address inclusion and diversity issues within adult education and training. Also, and in line with wider skills policies, there was a desire to create a demand-led system to improve the quality and responsiveness of providers⁵¹⁹, and to increase levels of personal investment in skills training⁵²⁰ which were comparatively low.⁵²¹ Prior to their introduction, different versions of ILAs were piloted in different regions including universal and targeted ILAs. The final versions combined these two elements; ILAs were universally available but marketed to specific population groups⁵²²:

- young people between 19 and 30 with low qualifications;
- self-employed people;
- women returners to work;
- non-professional school staff; and,
- ethnic minorities.

The pilots also led to a change in the financial model of ILAs. Rather than an actual savings account, ILAs became virtual learning ‘tokens’.

There were three incentives offered by the ILAs⁵²³:

- an initial incentive of £150 towards the cost of eligible learning for the first million account users, with a small contribution of at least £25 from the account holder;
- a discount of 20% on the cost of a broad range of learning capped at £100⁵²⁴; and
- a discount of 80% on the cost of a limited list of basic IT and mathematics courses, limited to a total of £200 discount per account from October 2000.

Individuals and employers also received tax incentives if they ‘topped up’ their accounts. Total funding for 2000-2002 was £150 million. The programme was operated by a private contractor

⁵¹⁸ ILAs were introduced separately, and later, in Scotland and Wales (see further below).

⁵¹⁹ Lee, B. (2010) *The individual learning account experiment in the UK: A conjunctural crisis? Critical Perspectives on Accounting 21* (2010) 18–30.

⁵²⁰ Owens, J. (September 2001) *Evaluation Of Individual Learning Accounts – Early Views Of Customers & Providers Technical Report. Department for Education and Skills.*

⁵²¹ Hillage, J. et. al. (2000) op. cit.

⁵²² National Audit Office (October 2002) *Individual Learning Accounts.*

⁵²³ Ibid.

⁵²⁴ Those which enhance the learners' employability or increases their vocational skills. The learning need not necessarily lead to the learner achieving qualifications. Recreational courses were not permitted.

(Capita) who registered learners and set-up their accounts. Capita was also responsible for the register of providers from which learners could choose. There were relatively few programme targets in terms of the types of learners or provision they undertook. Programme objectives were operational, concerned with how the scheme would work rather than what it should achieve. The primary target was opening 1 million accounts by April 2002 which was exceeded. By July 2002 1.5 million learners had been registered. In the same year, 8 910 providers were registered to deliver learning through the ILAs.

English ILAs were withdrawn in 2002 because of concerns over serious misuse⁵²⁵, before the scheme could develop and deliver the anticipated impacts. An early evaluation was undertaken in 2001 and showed that there was a broad spread of people registering and redeeming their ILAs, but that the operation of the scheme by a private contractor with insufficient oversight had contributed to a lack of quality assurance and fraud prevention. There was a significant uptake from women (58%) and from employees of small firms (43%), as well as those of non-white ethnicity (20%); in social classes DE⁵²⁶ (19%); labour market returners (18%); with no qualifications (16%); and the self-employed (10%). However, one quarter were graduates and 40% qualified to at least NVQ Level 4.⁵²⁷ ILAs were used to fund predominantly entry level courses, ICT in particular. Most learners (57%) had little or no prior knowledge of the subject, 48% could not have paid for the learning without an ILA, and 73% said the ILA increased their learning options.⁵²⁸

It is difficult to assess the legacy of ILAs in England since the programme did not operate for long. However, it is interesting to look at the development of **ILAs in Scotland and Wales** and what they learned from the experience in England.

Scottish ILAs (SILAs) began in December 2004 with similar aims to English ILAs i.e. widening participation, increasing participation amongst non-learners, and increasing personal investment in skills. The SILAs's target group was low earners. Unlike in England, SILAs could only be spent within the established provider base (300 approved providers). Furthermore, the programme was managed by Skills Development Scotland rather than subcontracted to a private sector organisation. Therefore, whilst the aims and principles were similar to English ILAs, SILAs were much more targeted, to be used with a narrower range of existing providers, and were directly managed by a Government organisation. In the first two years, SILAs funded around 60 000 learners, most of these undertook provision at a college (63%), and most courses were in ICTs, and leading to a qualification. However, 54% of learners were qualified to at least NVQ Level 4. Over half of learners would not have undertaken the course without the SILAs.⁵²⁹ Levels of deadweight in Scotland were 27% compared to 44% in England. SILAs ran to 2017 when they were replaced by Individual Training

⁵²⁵

The ILA programme was closed in November 2001 due to allegations of fraud (concerning a large number of account numbers that had been extracted from the system and offered for sale).

⁵²⁶ This is a socio-economic classification ranging from A-E. Social classes DE are the two lowest classes in the classification.

⁵²⁷ Owens, J. (September 2001) op. cit. and National Audit Office (October 2002) op. cit.

⁵²⁸ Ibid.

⁵²⁹ Cedefop (2009) Individual Learning Accounts.

Accounts (ITAs). ITAs are also targeted at those on low income, and in receipt of income related benefits. Training must be within one of Scotland's priority sectors. By 2020, 47 000 learners had taken up an ITA. Over half (55%) were not in employment, training focused on the: construction (29%); fitness, health and beauty (12%), and transport sectors (9%).⁵³⁰

ILA Wales were introduced in 2003, with similar aims to those in Scotland and England. However, ILA Wales were more tightly targeted at people on income related benefits. Participants also had to have a qualification below NVQ Level 3.⁵³¹ An independent evaluation undertaken in 2007 reported that ILA Wales generated 7 126 registrations and 5 274 course starts. The evaluation found that there were impacts on participants in terms of employment (53% got a job); earnings (58% received a pay rise); and competencies (88% said their knowledge/skills had improved).⁵³² The programme was ended in 2011 due to austerity. However, following a pilot in 2019, a national programme of Personal Learning Accounts (PLAs) was introduced with a similar remit to the original ILA Wales. By March 2021, 6 000 people had applied for a PLA and 3 000 had entered training.

ANNEX 14: INDIVIDUAL LEARNING ACCOUNTS – THE FRENCH EXPERIENCE

The annex is prepared based on the available literature and information shared by the programme managers for the French ILA (Caisse des dépôts et consignations - CDC).

1. Summary

- The French Individual Learning Account – the CPF *Compte personnel de formation* – stems from an initiative from 2005 and is subject to continuous reforms, the most recent in 2018 (operational in 2019), enshrined in employment laws. The ability to learn operational lessons and adapt as required is a key feature of the CPF.
- The online training accounts are accessible to all adults of working age, with recent reforms extending coverage to the self-employed volunteers and school leavers, provided they work more than half time. A time-based discount applies for part-timers below half time.
- The CPF can be held and utilised until retirement. The CPF is not tied to employment contracts, although training leave – for employees – has to be agreed with employers, with no loss of wage.
- Training has to be purchased from accredited training providers, authorised for the CPF; and it has to lead to a qualification or recognized certificate. There are currently 19 000 registered accredited providers (the list is reviewed periodically). For users, there is a search engine to help select courses and a helpdesk.

⁵³⁰ CIPD (January 2021) *Skills to grow: the case for enhanced individual learning accounts in Scotland*.

⁵³¹ Ibid.

⁵³² BMG Research (September 2007) [Individual Learning Account Wales \(ILAW\): Fourth Main Evaluation Report](#). Welsh Assembly Government.

- The CPF is largely funded through taxes on employers and allows additional contributions by individuals, their employers or public authorities (e.g., the Public Employment Service).
- The 2018 reform was intended to strengthen the autonomy and choice of the individual, thus improving flexibility, strengthening employment rights and increasing the number of training actions and learners, as the previous measures did not have the desired effect.
- One of the features of the reform is the monetisation of the learning accounts. Individuals can now access credits of €500 year, with additional financial incentives for the low-skilled (€800), which they themselves can spend for training.
- Another key innovation is to make the account details available to users online, via PC, tablet or mobile. The aim is to increase transparency and improve user access.
- Since November 2019 (until January 2021) there have been 6.5 million activations of the CPF, linked to a total of 1.77 million registrations for training activities. Participation figures for the revised CPF highlight a continued bias towards higher qualified individuals. So far, young and older people (below 19 and over 55) have also been under-represented in participation figures.
- Only about 10% of trainings are complemented with individual contributions, for an average value of around €485 (3.9% of the total training costs⁵³³). The possibility of top ups from businesses is relatively new (2020) explaining relatively low numbers (0.5% - see Table 13.1).
- The operational budget for the CPF for 2020-2022 (3 full years) is €100 million but subject to monitoring and additional investment.
- An evaluation/impact assessment of the CPF was due to be undertaken later in 2021. This may follow later to ensure that the results are not distorted by the Covid-19 pandemic and its impact on businesses and individuals.

2. General Description, Key Features, and Achievements

This section highlights the key points of individual learning accounts in France, by focusing on the portal *Mon Compte Formation* (MCF - my learning account). This portal combines the entitlements from multiple training schemes into a single portal. Most attention is subsequently given to the provisions of the CPF (*Compte Personnel de Formation*), the largest and most visible training entitlement scheme included in the portal that covers all workers in the private sector and unemployed.

⁵³³ It depends on the share of total trainings where individual contributions play a role (about 10%). 3.9% refers to the total costs for *all* trainings.

Currently there are between eight and ten thousand⁵³⁴ learning activities starting up every day that are partly or fully financed by the training funds accessed through the online training portal.⁵³⁵ This makes it an interesting case to further study. The organic growth and dynamic adjustments of the scheme in response to changing needs and political priorities gives a valuable insight into the implementation process of such a scheme for other Member States.

2.1 Key Features of the Current System (The Extended CPF)

Rationale

The law that underpins the current shape of French Individual Learning Accounts seeks to explicitly address the challenge of increasing participation in adult learning (“Law for the Freedom to Choose a Vocational Future” (*Loi sur la liberté de choisir son avenir professionnel*, a.k.a. Law “Pénicaud 2⁵³⁶,” or Law “*Avenir*”). The 2018 Law came into force on 1 January 2019 and was effectively implemented by November 2019.

The MCF seeks to improve the economic opportunities of citizens by giving them training rights, regardless of their professional status, and ensuring their accessibility in one location. The online training portal offers every individual information about his/her rights and responsibilities and offers information about the amount of money available on the website or the smartphone application (respectively *moncompteformation.gouv.fr* and *moncompteformation*, CPF Platform for short in the rest of this Annex).

With the MCF, individuals are made responsible for their own learning pathway, instead of depending on their employer, the State and/or the Public Employment Service (PES) to initiate training. In practice, the CPF allows all individuals, without intermediaries, to decide on which learning activities they would like to participate, from a list of training activities provided by accredited institutions. The objective is that this contributes to a higher completion rate of training, increases user satisfaction, and helps individuals to find learning activities that correspond to their vocational and occupational aspirations.

Coverage

The online learning portal offers a unified point of entry for the selection and purchase of training for all citizens. Within the account, the multiple existing entitlement schemes (that of employees in the private sector; CPF, public officials and volunteers; early school leavers with the *Compte d'Engagement Citoyen* (CEC⁵³⁷)), are presented into a single location, which offers a unified approach to the selection and purchase of training for all citizens.

The CPF is in principle open to all salaried workers in the private sector. In addition, any self-employed, freelancer, liberal and non-employee professions, collaborating spouse, artists, authors can

⁵³⁴ This figure from May 2021 relates to effective enrolments in formal learning activities thanks to the CPF (the dropout rate is around 10%). There is a difference between creating an account (or opening a CPF) and actually using it for engaging in formal learning.

⁵³⁵ CPF for short in the rest of this document unless the point is to differentiate the 2014 version from the 2018 version of the CPF.

⁵³⁶ After the name of the Minister at that time.

⁵³⁷ A Citizen Commitment Account (*Compte engagement citoyen*, CEC).

sign up for the CPF by paying their *Contribution à la formation professionnelle* (CFP, Contribution to Training).

In principle, under the CPF, all participants are eligible for €500 per year, cumulable up to €5 000 over ten years (part-timers working between 50% and 100% of the time receive the corresponding fraction of these amounts⁵³⁸). Specific additional contributions are in place for lower-qualified (Below CAP / EQF level 3), who are eligible for €800, cumulable up to €8 000 over ten years (here too part-timers receive the corresponding fraction). Self-employed that worked less than fulltime are eligible to a share of the annual €500 that is proportional to the time they worked.

Practical implementation

With the introduction of the portal, users know exactly at any point in time how much money they have on their account and what amount they may spend for learning activities. Creating and consulting one's entry on the online training portal requires a social security number that is unique for each person and provided by the National Statistical Institute (INSEE in France) at birth (a.k.a Physical Person Registration Number, NIRPP), composed of thirteen digits.

Users may add money on their learning account with a credit card. Only about 10% of trainings are complemented with individual contributions, for an average value of around €485 (3.9% of the total training costs). The system also allows for additional funders (e.g., employers, and public authorities can use the same mechanism to target specific groups) to provide extra funding to an individual CPF. So far, this has not been done in great numbers. Employers have contributed so far 0.5% of the total costs of the training actions paid for by the CPF (see Table A14.1 below). It is noted that this is only possible since July 2020, so it is still early to draw conclusions about this. The lockdown and other COVID-19 related measures may have substantially influenced this figure.

The CDC also asks providers to publish their existing provision on the website. The “market” is therefore fully transparent for all end users.

The CDC describes the online portal in terms of an e-commerce site: individuals ‘shop’ for training opportunities, add these to their ‘cart’, and pay for these with their training credit (to which additional credits can be added automatically, depending on specific eligibility), supplemented – where necessary – by their own contribution. Once a learner signs up, the training providers receive the request for participation, validate the registration and are subsequently paid.

If potential users want to, they may receive free guidance through the Professional Evolution Guidance (*Conseil en évolution professionnelle*, CEP⁵³⁹).

All in all, the system is developed to make it as easy as possible for the end users. The online platform has a helpdesk for users who have questions.

Registration of training providers

⁵³⁸ <https://travail-emploi.gouv.fr/formation-professionnelle/droit-a-la-formation-et-orientation-professionnelle/compte-personnel-formation>.

⁵³⁹ See: <https://www.service-public.fr/particuliers/vosdroits/F32457>. However, awareness of the CEP remains relatively low. See: <https://www.studyrama.com/pro/formation/dispositifs-de-formation-continue/cpf-et-cep-des-dispositifs-de-formation-et-d-accompagnement-professionnels-encore-trop-meconnus-22051.html>.

The *Caisse des dépôts et consignation* (CDC) is responsible for the hosting of the web portal, and functions as the central point of coordination towards training providers. The registration of all 19 000 providers is managed by the CDC, which now uses a common contract with standards and identical terms and conditions for every provider. This is a rather radical change compared to the past whereby providers drafted their own contracts and conditions. Training providers can include training programmes in the system that are either included on certified national, regional or sectoral interprofessional lists of training provision.

In interviews, the CDC highlighted that it wants to avoid the online portal to become a search engine that produces popularity-based results, i.e. that some providers would appear more often than others on the basis of ‘clicks’, instead of their intrinsic quality. In practice, individuals need to define and select the trade / sector the users are looking for. From there, they find learning activities corresponding to the selected trade. The CDC standardised how information on existing providers is displayed. No information is available about the user-friendliness of the chosen approach.

France Compétences, the regulatory body for the registry of training opportunities, has the responsibility to add new trainings within the registry, as long as they comply with the necessary quality standards.

2.2 A Brief History of individual training entitlements in France

The first version of the current ILA was introduced in 2004 and was called the Individual Right to Undertake Formal Learning Activities (DIF – *Droit Individuel à la Formation*). Since then, it has been revisited several times and the last reform in 2019 led to the Extended CPF (*Compte personnel de formation étendu*, CPF *étendu*). The most recent reforms brought new elements such as the digitalisation and the monetisation of the ILA. In addition, individual users do not need an agreement from the body managing the money anymore, before buying learning activities. Previously, the CPF was based on the number of hours (not on EUR) and it was managed by the bodies collecting the money, OPCAs (*Organisme paritaire collecteur agréé*). During the recent reforms, OPCAs have been replaced by the CDC (*Caisse des dépôts et consignations*).

Figure A14.1 - The development of the French ILA



The Law of 2004 – Creation of the DIF (implemented in 2005)

The Law of the 4th May of 2004⁵⁴⁰ on “Lifelong Vocational Education and Training and Social Dialogue” provides the legal basis for the establishment of the Individual Right to take part in Formal

⁵⁴⁰ [LOI n° 2004-391 du 4 Mai 2004](#) relative à la formation professionnelle tout au long de la vie et au dialogue social.

Learning Activities (DIF, *Droit Individuel à la Formation*⁵⁴¹). It was implemented on 7 May 2005 and the DIF existed between 2005 and 2014.

- **Reason for the legislation:** The main objectives of the law were to reduce inequalities in access to training, with particular attention for lower-qualified workers and workers in smaller enterprises⁵⁴².
- **Coverage:** The DIF targeted individuals in employment in the private sector (*salariat*)⁵⁴³, and was embedded in labour contracts, signed between the employer and the employee. By design it therefore excluded anyone not in an employment relation, such as freelancers, self-employed, or individuals that were fired from that enterprise. Young people entering the labour market without an employment contract could not benefit from the provisions either.
- **Value of entitlements:** The law requires enterprises to pay for 20 hours per year, cumulable to up to six years, of learning activities.
- **Financing:** The law introduces a mandatory contribution for enterprises to a newly created national training fund, effectively introducing a ‘training tax’ of 1.5-1.6% of the total salaries paid. The tax levied on smaller enterprises was lower ranging from 0.25% to 0.4% of the salary base.
- **Portability:** There was a “portable” version of the DIF (*DIF portable* in French) but the acquired right to learning activities was only valid for two years.

Review of the measure: The DIF was limited in scope, focussing only on employees and companies (leaving out unemployed, self-employed and young people) and with a limited duration of the portability of rights (two years).

The Laws of 2013 and 2014 – Creation of the CPF (1 January 2015)

The Law of the 14 June 2013⁵⁴⁴ on “securing employment”, further supplemented by the law of the 5 March 2014⁵⁴⁵, introduced an individual learning account to all persons active on the labour market. Together these laws offer the foundation for the implementation of CPF as of the 1 January 2015, when it replaced the DIF. It combined multiple existing sectoral schemes into a national universal system.

- **Reasons for the legislation:** The law is part of a broader package on innovating employment and combating precarious work. Learning rights are extended from employees to all individuals active on the labour market.

⁵⁴¹ The term *formation* in French has a very broad meaning and may range from academic training to purely vocational training, or both. In addition, it could be formal or not. Nevertheless, in this particular case, it is formal learning that is meant, i.e., organised in a formal context, in particular with learning objectives (Werquin, OECD, 2010).

⁵⁴² <https://www.legifrance.gouv.fr/dossierlegislatif/JORFDOLE000017759490/>

⁵⁴³ Strictly speaking, i.e., workers earning a wage paid by a regular employer (fixed term or unknown duration contract, full- or part-time). The DIF was linked to the status of employee.

⁵⁴⁴ <https://www.legifrance.gouv.fr/loda/id/JORFTEXT000027546648/>.

⁵⁴⁵ <https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000028683576>.

- **Coverage:** CPF was open to anyone aged 16 or more active on the labour market (i.e., workers in the private sector, job seekers, being involved in a guidance and reintegration project or hosted in an institution that is providing assistance to ‘at risk’ groups through work). Upon retirement, the individual account is closed and no longer offers training rights.
- **Value of entitlements:** The account defined a certain number of hours of learning activities. The learning activities that are eligible to financing from the CPF are all those leading to a vocational qualification or those listed by the sectoral branches, or interprofessional ones.
- **Financing:** The law does not alter the existing structure of financing training. The 2014 law introduces a common contribution of 1% based on the salary base for every employer, to which the national government complements to cover for the unemployed now introduced in the system.
- **Portability/Transferability:** The main innovation compared to the previous system (the DIF) was that the training hours on the account of the newly created CPF was made transferable: hours on the account remain available in the event of a change in labour market status or switching employers; essentially they become credits for the individual, instead of the employer. Someone that loses their employment keeps their rights to learning activities. The CPF allows to accumulate up to 150 hours, at a rate of 24 hours per year up to 120 hours, and then 12 hours per year.

Review: The use of the rights acquired in the context of the CPF is on individual's initiative: in case individuals are employees, learning activities are generally connected to enterprise needs, but this is not necessarily the case. In the event of an agreement between the employer and the employee regarding the use of the CPF, the learning activities may take place during working hours for all or part of the learning. The employer organises the training and registers the individual for the training, using the credits in the individual's account. In the absence of an employer-employee agreement, employees can still use credits in their CPF the way they want, but this must be done outside working hours and without additional funding. To enrol in training, they depend on the infrastructure of Public Employment Service (*Pôle emploi*), or with the regional authorities that regulate the learning activities.

The Law of 2016 – Opening up the CPF

The Law of the 8th of August 2016 (a.k.a Law “Labour”, *Loi “Travail”*) provided the legal grounds for the creation of the Occupational Activity Individual Account (*Compte personnel d’activité*, CPA), which offers an approach to group different from individual accounts, including the CPF, together. As such, it opens learning beyond only employed and jobseekers and now comes to encompass other categories of individuals: e.g., public officials, volunteers and early school leavers. The former may open a Citizen Commitment Account (*Compte d’engagement citoyen*, CEC) which allowed them, for instance, to undertake training or a Competences Audit (*Bilan de compétences*, BC) or to engage into recognition of prior learning (RPL), i.e., Validation of Experiential Learning Outcomes in France (*Validation des acquis de l’expérience*, VAE).

- **Reasons for the legislation:** While the CPF is open to all employees in the private sector and jobseekers, it did not include the inactive population, public servants, volunteers and

early school-leavers. The 2016 reform combines other existing schemes, so that the training entitlements are unified from the perspective of citizens. This reinforces the universal nature of the training accounts. It explicitly defines that learning is a right for every citizen.

- **Coverage:** The CPA brings together the various existing accounts and ensures training entitlements to the workforce.
- **Financing:** No changes to the financing of training.
- **Portability / transferability:** No changes.

Review: The law offers yet another step towards a ‘universal learning entitlement’, by combining multiple training accounts into a single heading (each of the training accounts continue to exist legally, but from the perspective of the individual are all combined into a Personal Activity Account). Individuals’ rights in the activity accounts are registered centrally by the CDC. Any requests to engage in training continue to be organized through the Public Employment Service (*Pôle emploi*), or with the regional authorities in charge of learning activities.

The Law of 2018 – The Major Reform of the CPF

The Law of 5 September 2018⁵⁴⁶ for the Freedom to Choose a Vocational Future is considered as a major reform of the CPF. Its major innovation is to put learners at the centre of the process, and better empower these individuals in selecting training opportunities. This avoids learners getting stuck between the organisation that purchases the learning activities (e.g., the enterprise) and the providers that deliver it. The reform directly transforms the training credits (previously expressed in hours) in money.

- **Reasons for the legislation:** While all individuals had a theoretical right to training, and access to their activity accounts, initiative most often came from the employer. Individuals that wanted to use the credits for training of their choice depended on the Public Employment Service (*Pôle emploi*), or the regional authorities so their credits could be monetized and used as compensation for the selected training.
- **Coverage:** The law does not change coverage. Under the CPF, workers are eligible for €500 per year, cumulable up to €5 000 over ten year. Specific additional contributions exist for lower-qualified (below CAP/EQF level 3), who are eligible for €800, cumulable up to €8 000 over ten years. Public civil servants continue to be part of the CEC training scheme which is expressed in hours.
- **Financing:** No major changes to the financing of training. The rules for the financing of VET by enterprises is adjusted and is conducted on the basis of a single levy.
- **Portability / transferability:** No changes.

This reform makes it easier and better understandable how and what trainings individuals can select and what financial means they have to support their purchase. The responsibility of using the training entitlement is now fully in the hands of the individuals, who are made responsible for purchasing the training (compared to earlier years, where the employers or PES were the ones purchasing the training,

⁵⁴⁶ [*Loi pour la liberté de choisir son avenir professionnel.*](#)

using the individual's credits). This shift in responsibility also facilitates the organisation of additional contributions by the individual, as it is immediately clear how much money is available on the account, and how much additional contribution would be necessary. Under this new approach, users are able to buy the learning activities online, directly from the providers of their choice.

3. Performance of the CPF

Accurate and complete data regarding the functioning of the CPF can not be provided at this point. The two main reasons for this are the following:

- The CPF system and the Platform in particular, as it is operating now, is rather new (November 2019) and the CDC is still developing its data collection system. Data collection is based on an Oracle powered database, but CDC is not yet able to provide up-to-date relevant statistics.⁵⁴⁷
- The start of the online portal and changes to the CPF coincide with the outbreak of Covid-19. As a result, any early conclusions and insights may not necessarily be representative for the next years.⁵⁴⁸

3.1 Headlines

The demand from 21 November 2019 to 30 June 2021

In terms of demand (i.e., individual consumption), the key figures from November 2019 to June 2021 (CDC, 2021a and CDC, 2021b⁵⁴⁹) are:

- 8.5 million personal accounts have been activated/created/opened (compared to 29.6 million of individuals in the labour force),
- 2.31 million validated registrations for a learning activity (this number can include multiple registrations per individual); i.e., 7.8% of the labour force, to be compared to 18.8% of the population aged 25 to 64 participating in education and training (Eurostat, 2018⁵⁵⁰). A drop-out rate of 10% was reported for these 2.31 million, i.e. learners who did not complete the training activities,
- 3.1 million downloads of the smartphone application *moncompteformation*,
- 232 990 users (roughly 10%) have made an individual top-up to their accounts to complement their funds available to be able to purchase training (via their credit card). The amount added varies from €4 to €500 (data available only until January 2021).
- €1 263 is the average price of a learning activity purchased through the CPF.
- €2.92 billion is the total cost (€2.31 billion x 1 263).

⁵⁴⁷ However, [CDC](#) and [Dares](#) have published analyses of the evolution of CPF usage between 2019 and 2020, also documenting a strong increase in use over this period.

⁵⁴⁸ Regarding the figures measured in 2020, they may be affected by some bias: The period from November 2019 to March 2020 saw the start-up and the rise of *moncompteformation*; Covid-19 interrupted this rise, which only resumed during the summer 2020: third parties funding was not covered by *moncompteformation* at the opening in November 2019. This possibility was first reopened in July 2020 for the Public Employment Service (*Pôle emploi*) and in September 2020 for companies.

⁵⁴⁹ CDC, 2021. Presentation of the Device *moncompteformation*, PowerPoint presentation, CDC, Paris, 29 January.

⁵⁵⁰ https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Archive:Statistiques_sur_l'apprentissage_des_adultes&oldid=410024.

- 13.5 million unique clicks on the CPF platform.
- There is no significant difference in CPF use by gender.

These figures show that most of the users so far have consulted their balance, but have not yet used their accounts to buy learning activities. Among the users that have actually registered for a learning activity with support of the CPF through the portal, the most frequently undertaken learning activities are:

- Languages (mostly English): 12.5% of all learning activities,
- Driving licence (car): 13%,
- Entrepreneurship (for creating or buying an enterprise): 7.9%, and
- Competence Audit (*Bilan de compétences*): 4.3%.

The supply from 21 November 2019 to 30 June 2021

In terms of supply (i.e., the providers), the key figures from November 2019 to June 2021 (CDC, 2021b) are:

- 22 130 accredited training providers (of whom 18 670 have at least one training action readily available).
- A pool of 338 940 different training actions on supply (of whom 30% relate to languages, and whereby about 30% of training sessions can be followed remotely/online).
- A pool of 5 741 different qualifications on supply (of whom 40% do not mention a specific level in relation to the national qualifications framework).

Demand by Unemployed People from 8 July 2020 to 30 June 2021

For unemployed people, the key figures from July 2020 to June 2021 (CDC, 2021b) are:

- 656 741 validated registrations (of whom 601 287 are autonomous, not prescribed by the Public Employment Service for example). This is 34.5% of all validated registrations.
- €777 million is the total cost (630.44 million for autonomous learners). This is 31.8% of all costs.
- The financing comes from France Compétence (83.9%), the Public Employment Service (10.3%) and others (5.8%).
- From 1 992 validated registrations in July 2020 to 50 911 in June 2021, (respectively €3 million and €80 million), with a steady trend upward.

Co-funding by Enterprises from 8 July 2021 to 30 June 2021

Enterprises have contributed to the CPF in the following way from September 2020 to June 2021 (CDC, 2021b):

- 3 659 enterprises have contributed.
- These enterprises have added money to 6 108 CPF.
- The total amount of this co-funding is €22.7 million.

3.2 Insights in the (development of) registration and take-up of training through CPF

The take-up rate may be seen from two points of view:

- The number of personal accounts created (or activated), and
- The number of learning activities actually bought (and validated) thanks to the CPF.

Monthly number and cumulative number of CPF's profile activation (Figure A14.2) – is an indication of the interest in the approach among the population. It displays the number of individuals that have been interested in checking how much money they own for training purposes, from the inception of the CPF on. The graph shows a strong interest at the time of the inception of the first version of the CPF, in 2015, when it replaced the DIF; and then some sort of seasonality, with “calm” summer months, and a renewed interest when job seekers – not necessarily unemployed – are actively searching the labour market; typically, at the beginning of each calendar year, and at the beginning of each academic year, after the summer break.

The progress in the number of activated profiles also indicates a strong sustained renewed interest when the New or Extended CPF (*CPF étendu*) was created. The monetisation of accounts and the new portal (since 2019) clearly fostered interest, even if this graph is not very conclusive as checking the amount available on the CPF is not a good predictor of its actual use for engaging in training.

Monthly number and cumulative number of training undertaken with CPF (Figure A14.3) confirms the interest for the initial CPF, in 2015, and for the New CPF, in November 2019. There is an inflexion point in the cumulative distribution after the inception of the New CPF, as can be seen in the previous graph. This appears to confirm that there is not only curiosity regarding the Extended CPF but a real use for buying training actions, although there is an absence of longitudinal data. The impact of Covid-19 is also not fully measured at this stage, except in qualitative terms.

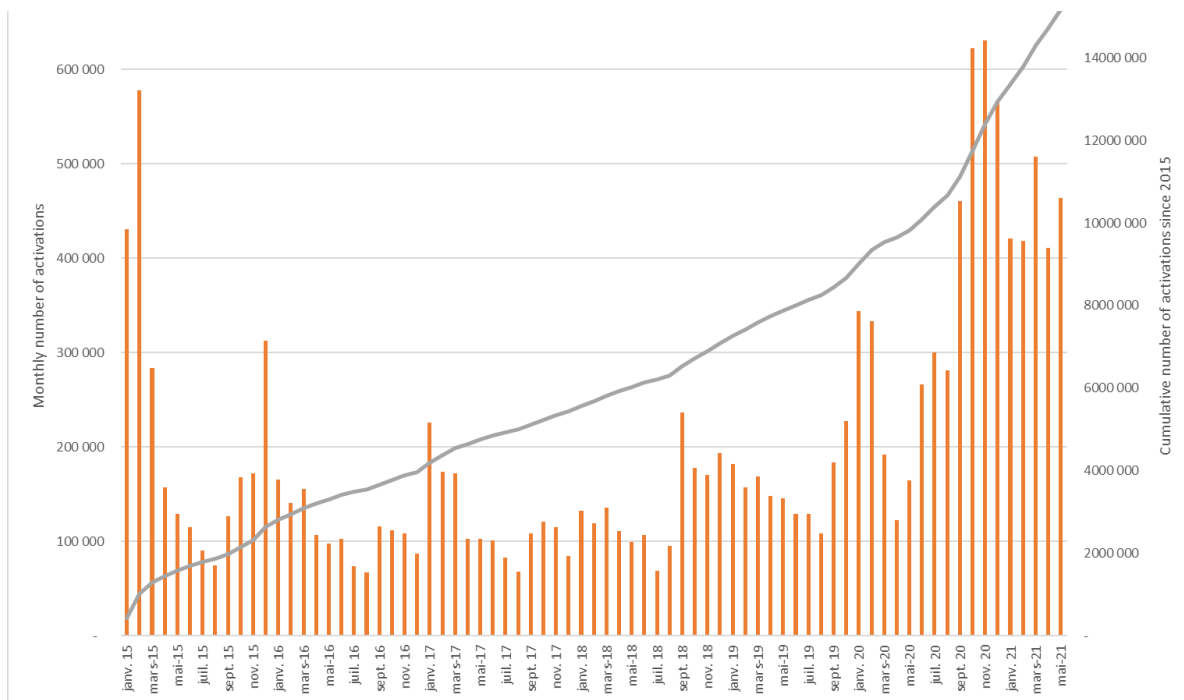
Worthy of note is the time lag that exist on the second graph, as if potential users had checked their balances on their CPF, and then took some time – nine to twelve months – to organise themselves and engage in learning activities.

The seasonality is even clearer on the second graph than on the first graph, with the months after the summer break being the most “active”.

The somewhat significant peak in, and shortly after, March 2017 may indicate a specific use of the CPF, for taking the driving licence for car, as this became possible with the CPF in March 2017.

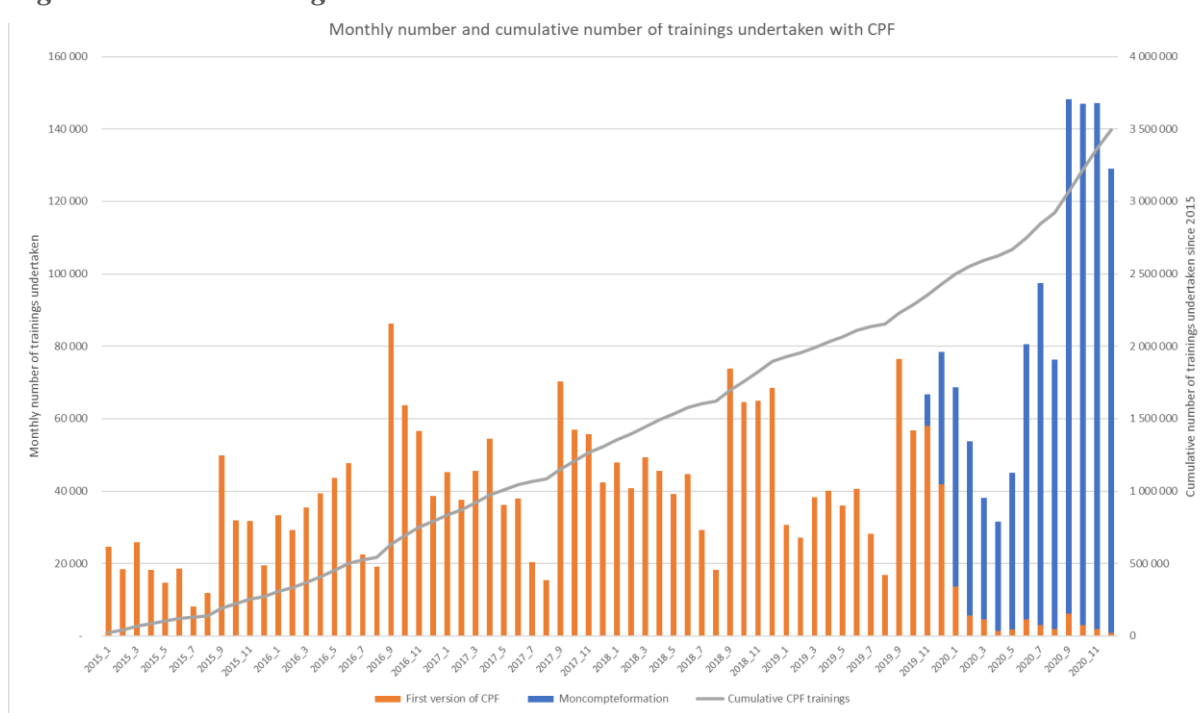
The most significant finding remains that the number of training activities undertaken thanks to the CPF nearly doubled between 2019 and 2020, which coincide with the opening of the smartphone application *moncompteformation*. This suggests an important effect of adequate tools and portals to communicate individual learning rights to individuals.

Figure A14.2 - CPF activations.



The number of training validations nearly doubled between 2019 and 2020 with the opening of *moncompteformation*.

Figure A14.3 - Training undertaken with CPF.



3.3 Insights in the (development of) unit costs of training through CPF

The monetisation of the CPF⁵⁵¹ (in 2019) led to better visibility of the budget spent on training by the employees in employment (*salarié-es*). For example, at the end of October 2019, the employees in employment had, on average, €1 040 on their CPF. Since not all employees have transferred their rights in hours from the time of the DIF to the Extended CPF in EUR, the theoretical average estimated for these accounts is around €2 000 (CDC, 2020^{552, 553}).

The average hourly cost of CPF-funded training is about €15. There is some evidence that the average price of more standardised training offers such as skills assessment (-9.5%), English language certificates (-41%) or driving licences (-29.6%) has decreased since November 2019. While this may reflect the impacts of more competition due to higher transparency, further evidence regarding the unit cost of training undertaken in the context of the CPF needs to be collected as the numbers collected during the year 2020 are atypical in view of the COVID-19 pandemic. It is hence somewhat early to provide conclusive pieces of evidence regarding the unit cost of training through the Extended CPF.

3.4 Insights into cost-sharing

The possibility for other stakeholders – typically employers, individuals themselves and the Public Employment Service – to add money to individual CPF appeared only recently: in 2019 for the individuals themselves, and in July 2020 for the others: employers, the Public Employment Service and other stakeholders. Evidence suggests that *France compétence* remain the main funder of the CPF (see the Graph and the Table below, respectively the *Monthly and cumulative purchases through the Smartphone App moncompteformation*, and the *table about the cost sharing over period July 2020 – April 2021*).

The second largest contributors are the individuals themselves and the Public Employment Service, on par for 3.9% each. Employers and the Regional Councils (which have some responsibility in terms of vocational training) are marginal contributors.

This global picture hides some difference to the extent that the Public Employment Service, for example, has a rather intensive approach: when it does support training, it does it at a rather high level (€1 575 on average). On the contrary, individuals may be more numerous to contribute, but their contribution is three times less: €485 on average.

In addition, the figure shows that most of the training actions are not co-funded anyway; which makes these numbers somewhat tricky to analyse. This is the total share of the contribution that is displayed in the Graph and in Figure A14.4 below. It remains true that *France compétence* is so far the main overall contributor (91.5%). When the rights of the CPF owners are not sufficient to cover the cost of

⁵⁵¹ Correspondence between the European Commission and the French authorities that latter stated that “hours” were not the most appropriate data to make comparison. With the switch in monetary value, anyone can swiftly and easily have a better understanding of the cost of any training and be in a position to make an informed choice. It improves clarity and transparency of the market’.

⁵⁵² https://retraitesolidarite.caissesdesdepots.fr/sites/default/files/QRS_29.pdf.

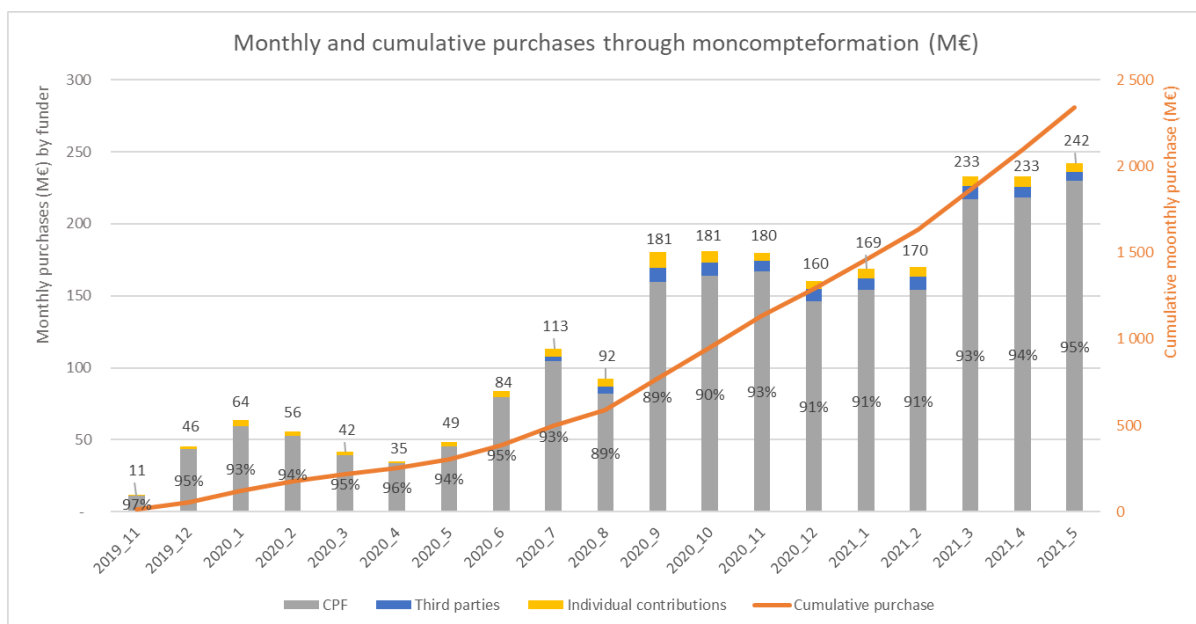
⁵⁵³ Note that workers had until 1 July 2021 to transfer their DIF rights to CPF accounts. Those that did not apply for a transfer will have lost their training rights. It will have to be seen to what extent this will have been done.

the training, they may apply for a contribution to supplement their rights. Contributions can be done by a list of funders defined in II of Article L. 6323-4 of the Labour Code.

In detail, co-funding may be done by:

- the individual owners of the CPF themselves (to finance targeted training only)
- employers, where the account holders are employees
- competence operators (OPCO)
- the National Health Insurance Fund
- occupational branches
- the State
- the Regional Authority
- the Public Employment Service (*Pôle emploi*)
- AGEFIPH (Association for the management of the fund for the professional integration of persons with disabilities)
- training insurance funds for self-employed
- chambers of trades and crafts
- local and regional authorities other than regions
- the National Agency for Public Health
- The unemployment benefits body (Unedic)

Figure A14.4 - Total volume of spending for eligible activities via the CPF Monthly data, since



2015, including funding from all sources.

Monthly amounts are indicated on the above graphic, as well as the monthly part of CPF funding (%).

The average cost breaks down as follow, on trainings bought between 8 July 2020 and 25 April 2021, that is the period when third parties began to finance CPF trainings in *moncompteformation*.

Table A14.1: Contributions.

Funders	Part of cost funding
France Compétences (CPF)	91.5%
Individual contributions	3.9%
Pôle Emploi (PES)	3.9%
Companies	0.5%
Others (mostly Regions)	0.2%

- Only 10.1% of the trainings are financed on individual contributions, but the individual contribution is on average €485.
- In the same way, only 3.3% of the trainings are financed by *Pôle Emploi*, but *Pôle Emploi* contribution is on average €1 575.
- This possibility of tops-ups is a new opportunity launched in 2020, built around social dialogue and collective decisions, which explains the low percentage. Given that the launch came at a time of the pandemic with many businesses in an emergency position there were not high expectations from the French government. It is indeed very recent and explain this low percentage.

13.3.5 Insights into operational costs

A budget of €100 million has been allocated to a goal and performance contract (*contrat d'objectif et de performance*) for the years 2020, 2021 and 2022. The budget includes the development of the CPF App, the website, the online portal, the management of the portal, the search engine etc. It includes all the needed costs. This 3 year-contract is monitored and, if necessary, adjusted every year. It can be renewed every three years.⁵⁵⁴

3.5 Ensuring training for those that need it the most

The CDC explicitly states that one of the objectives of the Extended CPF was to ensure that individuals that benefit most from training would be able to access it. Previous studies on early-stage data (2015-2017/2018) for the first version of the CPF point to mixed or even negative results in this respect. In particular:

- In Perez and Vourc'h (2020)⁵⁵⁵ individuals with below ISCED 2 educational attainment were deemed to be significantly underrepresented, based on 2015-2017 data. More specifically, the study reports that employees with no qualification (below ISCED 2) account for only 5% of

⁵⁵⁴ The information follows a request from the European Commission to the French national authorities. Further cost breakdowns are not available and the contract with the national operators, CDC, is subject to confidentiality clauses.

⁵⁵⁵ Perez, C. and A. Vourc'h (2020), "Individualising training access schemes: France – the Compte Personnel de Formation (Personal Training Account – CPF)", *OECD Social, Employment and Migration Working Papers*

the validated trainings purchased via the CPF against 12% of employees with the same educational attainment level. The breakdown by educational attainment level is however not available for the jobseekers.

- In OECD (2019),⁵⁵⁶ a similar situation is described again based on 2015-2018 data, although the trend, as indicated in Balmat & Corazza (2020)⁵⁵⁷ pointed to an increase in the take up of the low qualified, representing 4% of all trainings validated in 2015 and 7% in 2018. However, according to the study, in 2018 56% of the trainings were still validated by individuals with tertiary education, although they only represented 37% of the labour force.

Based on such evidence, the underrepresentation of the low qualified in 2015-2018 would seem quite apparent. **However, no study has yet assessed possible changes occurred after the introduction of the portal and mobile app Mon Compte Formation.** Furthermore, according to the CDC, in the first version of the CPF, many users had an unknown level of educational attainment. This is a possible source of bias, if low qualified individuals were overrepresented among them. It is also important to stress that these studies do not consider the educational attainment level of the unemployed, where the low qualified are likely to be overrepresented, as well as their take up.

Hence, a more updated picture is needed to draw some conclusions. Before presenting an assessment that is based on data up to 2020, it is worth explaining how this new assessment is made. In general, the take up rate is defined as the ratio between:

- Individuals who sign up to the CPF, and use their funds to purchase and carry out a training; and
- Individuals who are offered training entitlements via the CPF (eligible population)

Whilst data is available for the former (number of trainings validated) measuring the pool of eligible individuals is more complex as their eligibility might vary over time along with their condition in the labour market.

For instance, inactive individuals are in principle not offered training entitlements via the CPF. So, one would think that it is sensible to compare CPF users who have validated trainings, with the active population. However, based on Eurostat experimental data on labour market transitions,⁵⁵⁸ about 6% of the inactive become unemployed every year in France and an additional 4% find employment. This means that around 10% of the inactive become eligible for the CPF every year. If we consider that the CPF run for 6 years until 2020 (latest available data), it is fair to assume that about half of the inactive have been entitled to some training entitlements in their CPF over time, although the accumulation is arguably more limited for them. As there are labour market transitions also from employment and unemployment to inactivity, some will have also ceased to accumulate CPF entitlements as they became inactive. This is to say that in comparing the background features of CPF users and the eligible population there is no perfect proxy for the latter, and a balanced assessment is needed.

⁵⁵⁶ OECD (2019), *Individual Learning Accounts: Panacea or Pandora's Box?*, OECD Publishing, Paris, <https://doi.org/10.1787/203b21a8-en>

⁵⁵⁷ Balmat, C., & Corazza, E. (2020). [Le compte personnel de formation en 2018](#), DARES

⁵⁵⁸ Eurostat, Labour market transitions – annual data [LFSI_LONG_A]

Below we review the extent to which various target groups have made use of their training entitlements via the CPF, based on updated 2020 data and two different proxies of the eligible population: the active population and the general population. When the distribution of CPF users by occupation is discussed (i.e. in Table A14.4), the comparison is necessarily limited to those in employment.

Table A14.2: Qualification Level among the CPF Users, active and general population.

Highest Qualification Level before using the CPF (EQF)	% in the active population 25--64	% in the total population 25-64	% among CPF users	Difference between CPF and overall population	Difference between CPF and active population
1-2	14	18	17	-1	+3
3-4	41	42	43	+1	+2
5-8	45	40	40	0	-5
Total ⁵⁵⁹	100	100	100	100	0

Source: CDC, Eurostat,⁵⁶⁰ INSEE,⁵⁶¹ preparation by the author. As of November 2020.

Legend: In the French active population aged 25-64, 14% of the active population are EQF level 1 or 2. Among the CPF users, they are 17%. Individuals with a low level of qualification are slightly overrepresented among the CPF users (by 3 percentage points with respect to the active population in France). If we consider the overall population 25-64 y.o., and not just the active population, there is a slight (1 percentage point) underrepresentation of the low skilled among CPF users.

Table A14.3: Age Group in the Population and among the CPF Users

Age Group	% in the active population 15	% in the overall population 15+	% among CPF users	Difference between CPF and active population 15+	Difference between CPF and population 15+
15-19 for population, 16-19 for CPF users	2	8	0	-2	-8
20-29	18	14	20	+2	+6
30-39	24	15	34	+10	+19
40-49	25	15	27	+2	+12
50-54 for population, 50-55 for CPF users	13	8	11	-2	+3
55+	18	41	8	-10	-33
Total ⁵⁶²	100	100	100	0	0

Source: CDC, INSEE, preparation by the author. As of November 2020.

Legend: In the active French population aged 15+, 18% of the people are 55 or more. Among the CPF users they are 8%. Individuals above 55 are underrepresented among the CPF users by 10 percentage points.

⁵⁵⁹ May not be 100 or 0 due to rounding errors.

⁵⁶⁰ Author's elaboration on Eurostat, Active population by sex, age and educational attainment level (1 000) [LFSA_AGAED]

⁵⁶¹ https://www.insee.fr/fr/statistiques/2416872#figure1_radio2

⁵⁶² May not be 100 or 0 due to rounding errors.

Table A14.4: Social Category among Workers and among the CPF Users

Social Category	% among workers	% among CPF users	Difference between CPF and workers
White Collar High Skill	20.4	17	-3.4
White Collar Low Skill	25.8	49	23.2
White Collar Medium Skill	26	8	-18
Blue Collar	19.2	10	-9.2
Craftsman, shopkeeper, and business owner	6.8	2	-4.8
Farmer	1.4	0	-1.4
Unknown	0.4	14	+13.6
Total ⁵⁶³	100	100	0

Source: CDC, INSEE, preparation by the author. As of November 2020.

Legend: Among the workers in France, 20.4% of the people are WCHS. Among the CPF users they are 17%. WCHS are underrepresented among the CPF users by 3.4 percentage points.

The figures in table A14.2 above show that **after the introduction of the portal and mobile app Mon Compte Formation, the low and medium qualified are no longer under-represented among CPF users.** In fact, focusing on the active population only, there seem to be a slight overrepresentation of the low and medium qualified and a slight underrepresentation of those with tertiary education.⁵⁶⁴ This conclusion departs from previous studies indicating an underrepresentation of the low qualified. In terms of the trend, there is some evidence of a positive trend in this respect already over 2015-2018 and likely a break in 2019. However, it is not possible to conclude whether such break is due to a change in the profile of CPF users that is due to the introduction of the Mon Compte Formation. This is because changes to the monitoring system of the CPF meant that in the new data there no longer are trainings validated by individuals with “unknown educational attainment level”. In general, it should also be considered that although the low qualified are currently not underrepresented in the scheme, they receive higher entitlements than the general population, so it is not possible to assess what would happen had they received the same amount of the other target groups.

As per the breakdown by age, a slight overrepresentation of those aged between 20 and 50 continues to exist (Table A14.3).

Blue collar workers use their CPF less than their share in the labour force (19.2% and 10%) but this is also the case, for instance, for some white-collar workers, especially the white collar medium skill workers (26% and 8%). Table A14.4 does not allow us to conclude about the use of the CPF by self-employed workers since they are present in several, almost all, categories of the Table. However, they are probably most present in the category “Craftsman, shopkeeper, and business owner” which displays a rather clear underutilisation of the CPF. Most likely, this is related to the financial contribution these individuals have to make in order to be eligible for the CPF; the financial

⁵⁶³ May not be 100 or 0 due to rounding errors.

⁵⁶⁴ One small caveat to this is that the comparison is limited to those up to 64 years old. If individuals over 65 years of age were taken into account in the distribution of educational attainment levels for the eligible population, there would be some underrepresentation of the low qualified, as these are overrepresented in this age bracket. However, considering the low take up rates of individuals above 55 years old, this should not be the case.

contribution is a share of the salary base, and in many cases is not much lower than the annual entitlement made available.

Information on the size of enterprise (e.g., small and medium-sized enterprise or else) and on the nature of the job (e.g., regular or marginal, full time or part time) are not available either. Therefore, it is not possible to assess whether the CPF was also a success in terms of attracting workers in SME and/or having an atypical job.

3.6 Types of training selected by CPF users

Easy access to CPF seems to have contributed to different patterns in requests for training, possibly signalling the reaching of new target groups. Before the launch of the Smartphone App, *moncompteformation*, many learning activities were related to language courses (40%). Now, more recent figures after the launch of the App shows that the choice of users are somewhat changing, and the top five areas of learning activities are given in Table A14.5.

Table A14.5: The top-5 learning areas selected by CPF users

Learning Area	% before the inception of the Smartphone App	% since start of the Smartphone App	Difference
Logistic (Including driving license)	14	30	+16
Guidance for integration in the labour market	10	19	+9
Languages	40	18	-22
Computer Science	11	7	-4
Security	4	5	+1

Source: CDC (as of November 2020).

3.7 Current plans for the future

The CDC is planning to produce additional aggregated data for the broader public (there is work to be done to define how monitoring will be done and how data protection issues will be resolved). For instance, their database contains:

- Description of all periods worked (thanks to monthly reports with employment status, actual working time, wage etc.),
- Data on situation in relation to disabilities.

By the end of 2021, the CDC is planning to launch a “competence passport” on LinkedIn.

The CDC also implements other projects with a data collection component, such as the Agora Project:

- Data on entry into any kind of learning activities, whether in the context of the CPF or not (e.g., funded by the Region, the Public Employment Service, or paid by the Operator of Competences – OPCO – for employees),
- Data on any qualification achieved at the end of the CPF, and at the end of any adult learning process (including qualifications achieved in the RPL/VAE system),
- Data on the entire occupational history of individuals.

ANNEX 15: OPERATIONAL OBJECTIVES AND MONITORING

Table A15.1: Operational objectives and monitoring

Specific objectives	Operational objective	Indicators*	Source
<p><i>Support Member State reforms to:</i></p> <p>1. Close support gaps</p> <p>AND</p> <p>2. Increase incentives and motivation to seek training</p>	<p>Member States have in place personal accounts with training entitlements for entire adult population of working age.</p> <p><i>Linked to specific objectives (SO) 1 and 2.</i></p>	<p>a) Number of Member States with personal accounts with training entitlements for entire adult population of working age.</p> <p>b) Personal accounts activated- absolute number and as share of the eligible population group, with disaggregation by Member State, employment status (<i>employed, unemployed and inactive</i>) and characteristics of the employment relationship (<i>permanent employee vs. other employed person and SME vs. large enterprise</i>).</p>	<p>Specific ad-hoc study⁵⁶⁵ and Member State public authorities.</p> <p>Specific ad-hoc study and Member State public authorities.</p>
	<p>Member States modulate the amount of training entitlements that are credited to the personal accounts according to the target group (<i>providing more to priority target groups</i>).</p> <p><i>Linked to SO 1 and 2.</i></p>	<p>Number of Member States that have specified priority target groups for training entitlements.</p>	

⁵⁶⁵ Such studies can for instance draw on the independent expert network on adult learning maintained by DG EMPL since 2016.

	<p>Member States have in place a public registry of recognized training, guidance and validation opportunities.</p> <p><i>Linked to SO 2.</i></p>	<p>a) Number of Member State with a public registry of recognized training, guidance and validation opportunities.</p> <p>b) Number of users of the registry as measured by the number of included training, guidance and validation events that have taken place per year.</p>	<p>Specific ad-hoc study and Member State public authorities.</p>
	<p>Member States offer career guidance services to all entire adult population of working age.</p> <p><i>Linked to SO 2.</i></p>	<p>a) Number of Member States with public provisions to ensure that the entire adult population of working age can access career guidance.</p> <p>b) Share of adult population of working age receiving career guidance per year.</p>	<p>a) Specific ad-hoc study and Member State public authorities.</p> <p>b) Variable “GUIDEINST” from the Adult Education Survey (“<i>Information or advice/help on learning possibilities received from institutions/organisations in the last 12 months</i>”). Available for 2016, 2022, and in six year intervals after 2022.</p>
	<p>Member States make paid training leave accessible for all employed adults.</p> <p><i>Linked to SO 1 and 2.</i></p>	<p>a) Share of employed adult population that is eligible to take paid training leave.</p> <p>b) Share of employed adult population that takes paid training leave per year.</p>	<p>Specific ad-hoc study and Member State public authorities.</p>
	<p>Member States ensure continuous improvements of the scheme.</p> <p><i>Linked to SO 1 and 2.</i></p>	<p>Number of Member States that have conducted an evaluation of their scheme providing individuals with training entitlements.</p>	<p>Specific ad-hoc study and Member State public authorities.</p>
<p>General objective: Increase overall participation of adults in training.</p>	<p>Outcome indicator: Member States increase the share of adults who participate in learning per year.</p>	<p>Participation of adults aged 25-64 in formal or non-formal learning per year.</p> <p>Total (EU and per Member State) and with disaggregation by employment status</p>	<p>EU Labour Force Survey, data available every 2 years starting in 2022.</p>

		<i>(employed, unemployed and inactive) and characteristics of the employment relationship (permanent employee vs. other employed person and SME vs. large enterprise).</i>	For 2022, also data from the Adult Education Survey will be available, ensuring a direct comparability to the statistics on participation from the 2016 Adult Education Survey presented in this Impact Assessment.
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* The above table provides a tentative list of indicators. The feasibility of collecting such indicators will be further analyzed (in terms of data availability, sensitivity etc.)