Council of the European Union

Brussels, 16 September 2026
(OR. en)

13243/26
ADD 2

Interinstitutional File:
2026/0274 (COD)

EDUC 373
SOC 600
EMPL 345
MI 890
COMPET 1071
ENT 225
TELECOM 423
DIGIT 229
IA 224
CODEC 1681

COVER NOTE

From:	Secretary-General of the European Commission, signed by Ms Martine DEPREZ, Director
date of receipt:	15 September 2026
To:	Ms Thérèse BLANCHET, Secretary-General of the Council of the European Union
No. Cion doc.:	SWD(2026) 993 final
Subject:	COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT REPORT Accompanying the document Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on portability of qualifications and skills and amending Regulation (EU) 2018/1724 ("Skills Portability Act")

Delegations will find attached document SWD(2026) 993 final.

Encl.: SWD(2026) 993 final

EUROPEAN
COMMISSION

Strasbourg, 15.9.2026
SWD(2026) 993 final

COMMISSION STAFF WORKING DOCUMENT

IMPACT ASSESSMENT REPORT

Accompanying the document

Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on portability of qualifications and skills and amending Regulation (EU) 2018/1724 ("Skills Portabilty Act")

{COM(2026) 992 final} - {SEC(2026) 992 final} - {SWD(2026) 992 final} - {SWD(2026) 994 final}

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Glossary

Acronyms and key terms	Meaning or definition
Comparability statement	A document that shows how a foreign (non-national) qualification compares with a domestic or national qualification
Competent Authority	An authority empowered by a Member State (MS) to receive applications for recognition decisions under Directive 2005/36/EC (Professional Qualifications Directive)
Credential	A paper or digital document record of a qualification
Cross-border worker	Any person pursuing an activity as an employed or self-employed person in a MS and who resides in another MS to which he returns as a rule daily or at least once per week
Labour market actors	Key actors who shape how work is organised, accessed, and regulated (such as workers and jobseekers, employers, trade unions, employer associations, government and public authorities, Competent Authorities, or employment agencies and intermediaries such as public and private employment services)
Learning outcomes	Statements regarding what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and responsibility and autonomy
Micro-credential	A record of learning outcomes acquired following a small volume of learning. For more information see Annex 7
Mobile worker	EU citizen in the labour force who resides in a MS other than their country of citizenship
National Qualifications Framework	An instrument for the classification of qualifications according to a set of criteria for specified levels of learning achieved, which aims at integrating and coordinating national qualifications subsystems and improve the transparency, access, progression and quality of qualifications in relation to the labour market and civil society.
National worker	In the context of this IA, the term "national worker" is used for individuals, who have obtained the qualification in the country where they work or look for a work.
Non-regulated profession	Profession whose access is not reserved by law to the holders of specific professional qualifications. Those professions are not falling under the scope of the Professional Qualifications Directive
Qualification	A formal outcome of an assessment and validation process which is obtained when a competent authority determines that an individual has achieved learning outcomes to given standards.
Regulated profession	Profession whose access is reserved by law to the holders of specific professional qualifications, as defined under the Professional Qualifications Directive
Skill	The ability to apply knowledge and know-how to complete tasks and solve problems

List of abbreviations

Acronyms and key terms	Meaning or definition
AG	Advisory Group
AI	Artificial intelligence
EDC	European Digital Credentials for learning (for more information see Annex 7)
eIDAS	Electronic Identification, Authentication and trust Services
ELM	European Learning Model (for more information see Annex 7)
ENIC/NARIC	European Network of Information Centres/National Academic Recognition Information Centre
ESCO	European multilingual classification of Skills Competences and Occupations (for more information see Annex 7)
EUDI	European Digital Identity
EQF	European Qualifications Framework (for more information see Annex 7)
GDPR	General Data Protection Regulation
IA	Impact Assessment
MS	Member State(s)
NQF	National Qualifications Framework
OO	Operational Objective
OOTS	Once-Only Technical System
PO	Policy Option
PQD	Professional Qualifications Directive
QDR	Qualifications Dataset Register (for more information see Annex 7)
SDGR	Single Digital Gateway Regulation
SDGs	Sustainable Development Goals
SMEs	Small and medium-sized enterprises
SO	Specific Objective
SPI	Skills Portability Initiative
TCN	Third-country nationals
TFEU	Treaty on the Functioning of the European Union
VET	Vocational Education and Training

1. INTRODUCTION: POLITICAL AND LEGAL CONTEXT

1.1. Overall context of the Skills Portability Initiative and the Fair Labour Mobility package

While the EU's labour market has reached **record-high employment levels** and shown remarkable resilience in the post-pandemic era,[1] its strong performance masks a structural challenge: **widespread skilled labour shortages** that threaten business growth and the EU's global competitiveness.[2]

Critical sectors – ranging from healthcare and ICT to construction and transport – struggle to find the talent they need to scale up and drive the twin transitions. These shortages are structural, not cyclical, and expected to worsen due to demographics and evolving demand for new skills and occupations.[3] They are not evenly distributed across the economy and **most acutely felt by Small and Medium-sized Enterprise (SMEs)**, which have fewer resources to navigate complex recruitment channels.[4] Labour and skills gaps also threaten the delivery of essential public services like healthcare, education and long-term care.[5]

Paradoxically, the EU also suffers from **'skills waste'. Overqualification and the underutilisation of skills** remain structural features of the labour market. This mismatch is significantly more pronounced among EU mobile workers and third-country nationals (TCN).[6]

Uncertainty about whether **qualifications and skills** will be **fully understood, valued, and formally recognised** (in the case of regulated professions)[7] **in another MS**, may discourage professionals from seeking employment opportunities outside their MS.[8] It can also deter companies, especially SMEs, from tapping into the potential pool of talent of the Single Market.

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[1] The employment rate for people aged 20-64 equalled 76.3% in the Q1 of 2026.

[2] With minor fluctuations, labour market slack in the EU has been decreasing steadily from 18.6% in 2015 to 10.9% in Q1 2026 while the job vacancy rate in the EU stood at 2.0% in Q4 2025.

[3] The EU's working-age population is projected to shrink from 265 million in 2022 to 258 million by 2030 (ESDE 2023, based on Eurostat EUROPOP2023 projections), while job vacancy rates have more than doubled over the past decade. Cedefop's skills forecast to 2035 further confirms that in key shortage sectors — health, care and construction — shortages stem primarily from replacement demand.

[4] 51% EU firms reported that the scarcity of skilled workers was a major barrier to investment in 2024 – up from 38% in 2016. EIB 2024/2025. A 2026 Eurobarometer survey shows that 46% of SMEs are finding it difficult or very difficult to finding staff with the right skills over the past 24 months. For SMEs, the inability to recruit has immediate consequences. In an earlier survey, 48% of them reported that shortages lead to an increased workload for existing staff, directly impacting productivity and the ability to innovate.

[5] According to the OECD, in 2022, the EU faced a shortfall of 1.2 million health professionals, with shortages reported by 20 MS for doctors and 15 for nurses. The crisis is driven by an ageing population increasing demand while over one-third of doctors and a quarter of nurses approach retirement. This trend is expected to worsen, causing a projected shortfall of around 2 million health and long-term care workers by 2030, with demand continuing to grow thereafter due to ageing populations. Cf. OECD (2024) and European Commission (2021).

[6] In 2024, there were 14 million European citizens living in another EU MS, of which 10.1 million of working age. In addition, there were 1.9 million cross-border commuters. In 2024, 12.8 million non-EU citizens were employed in the EU in 2025. Cf. European Commission (2026), Eurostat LFS 2025. The overqualification rate among EU workers employed in their own country stood at 20.8% in 2023. For mobile EU-citizens and TCN the equivalent rate equalled 31.4% and 39.8% respectively. Eurostat LFS, lfsa_eoqgan.

[7] Regulated professions are the focus of Action 2 of the Skills Portability Initiative; the definition of the concept and its practical scope are explained in the accompanying IA.

[8] In a recent Eurobarometer 18% of respondents indicated an interest in working abroad, higher than the actual number of mobile workers. Cf. European Commission (2022).

Beyond economic efficiency, **skills portability** is a prerequisite for exercising the fundamental rights enshrined in the Treaties, including the **right to free movement (Article 21 TFEU), the freedom of movement for workers (Article 45)** and the **freedom of establishment (Article 49 TFEU).** While individual decisions on relocating to another EU MS depend on many factors, limited skills portability contributes to difficulties that many citizens experience when exercising these rights. In border regions, skills-related barriers to mobility limit job opportunities in neighbouring countries which could be accessed without the need for relocation.[9] Improving skills portability across borders thus also contributes to the 'right to stay'.

The **Letta report on the Single Market** to the European Council highlighted that: "*Free movement of people has been and remains the least developed of the four freedoms".* It also stressed that fragmented national labour markets hinder European growth and competitiveness and that *"extending the system of automatic recognition of professional qualifications and reviewing the need for and extent of professional regulation would facilitate mobility and help to respond to persistent labour shortages".* [10]

In response, the **Political Guidelines of Commission President von der Leyen**, committed to a "*Skills Portability Initiative to ensure a skill acquired in one country is recognised in another*".[11] They also underscored the need to *"support MS and companies with legal migration based on the skills needs of our economies and our regions"* and to *"make it easier to attract the right talent with harmonised rules on the recognition of qualifications".*

At its meeting on 19 March 2026, the **European Council** urged swifter action, calling for measures to *"enhance free movement of workers by improving mutual recognition of professional qualifications and strengthening the portability of qualifications and skills across national borders, including through digitalisation and interoperability, on the basis of a Commission proposal to be presented by autumn 2026*".[12] On 24 April 2026, the European institutions agreed on a roadmap to achieve **'One Europe, One Market'** to strengthen Europe's competitiveness, with a commitment for concrete actions and targets for agreements by end of 2027. The Skills Portability Initiative is one of the **priority deliverables to contribute to a more integrated Single Market**.[13]

This political direction is supported by the broader institutional landscape. The **European Economic and Social Committee** has called for further discussions among governments, social partners, and stakeholders to consider expanding the list of automatically recognised regulated professions and creating common training frameworks under Directive 2005/35/EC, addressing barriers to its implementation.[14] The **Committee of the Regions** has highlighted the importance of enhancing the portability and recognition of qualifications across the EU, which are essential for fostering labour mobility, combating brain drain and fully harnessing the Single Market and talent within regional economies.[15]

As part of the **Fair Labour Mobility package,**[16] the Skills Portability Initiative aims to empower European businesses to recruit the skilled labour force they need to remain

[9] ITEM study on challenges and solutions for recognising professional qualifications in cross-border regions.
[10] Letta (2024).
[11] Von der Leyen (2024).
[12] European Council meeting (19 March 2026) – Conclusions
[13] One Europe, One Market Roadmap of the European Parliament, the Council of the European Union and the European Commission
[14] SOC/837-EESC-2025
[15] CDR-1105-2025
[16] For more context, see CWP 2026 Commission work programme 2026 - European Commission.

competitive in the global economy, effectively safeguard the right to free movement and allow talent to flow seamlessly to where it adds most value. By simplifying and improving the transparency of recognition, and validation, the initiative strengthens coherence between migration pathways, labour market needs and skills systems; supporting improved labour market matching, enhanced productivity and reduced skills underutilisation across the EU.

The initiative aligns with the **2030 Agenda for Sustainable Development**, in particular SDG 8 (Decent work and economic growth), SDG 9 (Industry, innovation and infrastructure), SDG 10 (Reduced inequalities) and SDG 1 (No poverty).

1.2. Coherence of the package

Underemployment, overqualification and 'skills waste' stem inter alia from **imperfect information** and **regulatory or administrative barriers to free movement.** Mobile professionals struggle to valorise the qualifications and skills they acquired abroad because labour market actors find it relatively more difficult to interpret and verify non-national credentials. This puts qualifications and skills acquired in a non-national context at a disadvantage. The Skills Portability Initiative aims to address these barriers through a set of **three distinct but interrelated actions**:

<u>Action 1</u>: Improving availability of reliable, comparable and verifiable digitalised information on qualifications and skills in the EU

This action aims to bring simplification for employers and workers by making qualifications instantly understandable and verifiable for labour market actors across the Single Market and facilitating comparison of the level and content of qualifications issued in the EU. It aims to do so by building on existing tools such as the European Qualifications Framework, Europass and the European Digital Identity Wallet, and through setting common standards for digital attestations of qualifications to be interoperable, secure, and machine-readable. This will reduce the 'interpretative burden' on hiring managers and preventing further fragmentation between MS resulting from uncoordinated investments in digitalisation.

This action is relevant for all workers using qualifications obtained in other EU MS in any labour market context, including for access to regulated professions. In the context of unregulated professions, which constitute 78% of EU labour force, the improved availability of digitalised and comparable information on qualifications and skills will contribute to decreasing the uncertainty about how to treat qualifications obtained in another MS, which at the moment leads employers to request costly and time-consuming comparisons with national qualifications even though these are not legally required. In regulated professions, the digital attestations set up thanks to Action 1 are a key element of the simplification of the recognition procedures under Action 2. The various problem drivers, Policy Options and impacts are discussed in this IA.

<u>Action 2:</u> Targeted Intervention for Regulated Professions

The second action focuses specifically on improving cross-border recognition procedures for access to regulated professions.[17] There are currently over 5,700 professions regulated across

[17] Article 3 of the Professional Qualifications Directive defines a regulated profession as *"a professional activity or group of professional activities, access to which, the pursuit of which, or one of the modes of pursuit of which is subject, directly or indirectly, by virtue of legislative, regulatory or administrative provisions to the possession of specific professional qualifications."*.

the EU[18] covering an estimated 22% of the labour force,[19] with considerable variations in how these professions are governed and diverging access requirements between MS. This exacerbates the issue of allocative inefficiency as imperfect information is compounded by legal and administrative hurdles to skills mobility. Under the TFEU, regulation of access to professions is MS competence within the limits of EU law, and in particular, non-discrimination and proportionality.[20] Consequently, there is a high variety of approaches to regulating the access to professions between MS which creates barriers to professional mobility within the EU. To address those barriers, the EU has established the Professional Qualifications Directive[21] (PQD) which provides a robust, legally binding framework that sets out rules on the recognition of professional qualifications in a cross-border context. Thus, the Directive facilitates professional mobility, ensuring that individuals who have acquired their professional qualifications in one MS for access to a given profession, can access and pursue the same profession in another MS under the same conditions as nationals. However, the experience of professionals navigating the existing regulatory framework reveals that recognition often remains a complex and time-consuming process. While the framework's foundations are fundamentally sound, lengthy procedures, uneven digitalisation of national processes and procedures, and heavy documentation requirements risk undermining its potential. Action 2 aims to facilitate cross-border recognition of professional qualifications required to access regulated professions is organised into two primary work strands. The **first work strand** focuses on applying the automatic recognition system to additional regulated professions. Currently, automatic recognition exists for certain sectoral professions with harmonised minimum training requirements (such as doctors and nurses). For specific economic activities in trade and commerce there is automatic recognition based on professional experience. The action aims to extend automatic recognition to professions which are not currently covered using Common Training Frameworks. It is covered as part of the baseline in the dedicated IA for action 2.[22] The **second work strand** on Modernisation and Digitalisation of Procedures aims to simplify and speed up recognition of professional qualifications for regulated professions, by streamlining the existing recognition procedures under the Directive, leveraging the potential of digital tools. Action 2 is based on articles 46, 49, 53 and 62 TFEU. The various problem drivers and Policy Options in this second work strand are discussed in a dedicated IA.

Action 3: Attracting and Empowering Global Talent

Acknowledging that intra-EU mobility alone cannot solve all labour market needs, Action 3 focuses on making the Single Market a more attractive destination for TCN by enabling them to have their qualifications recognised and their skills validated more easily. This will both benefit the TCN already residing and working in the EU and those who intend to migrate to

[18] According to the ECA, the combined data on professions that are regulated in the MS show that the total increased from around 5 400 in 2016 to around 5 700 in 2023 (average per MS: 212 regulated professions). Annex 8 of the IA accompanying Action 2 of the Skills Portability Initiative provides more background on regulated professions in the MS, for illustrative purposes. The European Commission's RegProf allows to verify which professions are regulated at national level in the EU, by MS.

[19] See COM (2016) 820 final.

[20] Directive (EU) 2018/958 on proportionality tests obliges MS to assess, before adoption, whether new or amended regulation of professions is justified, necessary, and proportionate to legitimate public-interest objectives, and to document this assessment transparently: by doing so, it indirectly supports recognition by reducing barriers and promoting consistency across MS.

[21] Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications. The PQD, based on articles 46, 53(1), 53(2) and 62 TFEU is part of a broader acquis governing the free movement of professionals. The links between the PQD and other instruments on the free movement of professionals in the Single Market are explained in more detail in Annex 7.

[22] The link between this strand of work and the modernisation and digitalisation of recognition procedures is explained in Annex 9 of the relevant IA.

the EU, making the Single Market a more attractive destination for global talent. Action 3 is based on article 79 (2) points (a) and (b) TFEU. The various problem drivers and Policy Options in this third work strand are discussed in a dedicated IA.

Actions 1, 2 and 3 are closely interlinked and coherent.

The interoperable, secure and verifiable digital attestations developed under **Action 1** are a foundation, on which actions to simplify and speed up recognition procedures in the context of regulated professions under the PQD **(Action 2)** build, by reducing administrative burdens on Competent Authorities enabling smoother, faster assessments of qualifications.

Action 3 addresses a critical gap: the PQD's recognition procedures **do not cover third-country nationals (TCNs)**. TCNs and EU citizens holding non-EU qualifications do not always benefit to the same extent from the existing EU transparency tools. This puts them at a disadvantage compared to EU citizens holding EU qualifications, undermining the attractiveness of the Single Market as a destination for global talent. To address these issues, specific action to facilitate recognition of qualifications of TCN is warranted. This is the purpose of Action 3. Just like Action 1, Action 3 uses the European Qualifications Framework as a key tool to enable comparability and portability of qualifications across borders, implemented in particular through comparisons between the EQF and qualifications frameworks of third countries, such as in the context of Talent Partnerships, or other EU partnerships.

Together the three actions form a coherent package, each addressing distinct but interlinked dimensions of skills portability: 1) the framework for availability of digitalised information about qualifications and skills which forms the foundation for the other actions, 2) the recognition of qualifications for intra-EU mobility in regulated professions, and 3) the recognition of qualifications of TCN. As such, the three actions are mutually reinforcing and contribute to the broader objectives of supporting labour mobility, reducing skills mismatches, and improving the functioning of the Single Market.

This IA focuses on Action 1 of the Skills Portability Initiative: "Improving availability of reliable, comparable and verifiable digitalised information on qualifications and skills in the EU".

2. PROBLEM DEFINITION

2.1. Background

Qualifications and their signalling role on the labour market

Employability, broadly defined as the capability of an individual to secure and sustain employment, is determined by a wide range of factors relating both to personal attributes and the prevailing economic context. There is clear statistical evidence that that among the personal attributes, the level of educational attainment, i.e. the successful completion of an education programme being validated by a recognised qualification influences employability (see Eurostat LFS).[23]

This does not mean that qualifications are the only element that employers consider when recruiting people, and many internal and external factors can influence their choice. It

[23] [lfsi_educ_a] Employment by educational attainment level - annual data

nevertheless ultimately means that a significant number of them[24] take into account, at least to a certain extent, the qualification of their potential future workers in their hiring decisions.

The role of qualifications in reducing the uncertainty of firms as regards the future productivity[25] of the recruited labour force has been long established in the literature. For Arrow, higher education serves as a screening mechanism of the differing abilities of individuals and in this respect conveys information to the purchasers of labour in a context of imperfect information on workers potential job performance.[26] Spence presents the level of education as a signal on the job market for employers who cannot directly observe productivity ex ante recruitment. Spence also underlines the existence of a feed-back loop: the conditional probability of productivity level attached to one signal (a qualification) is adjusted after each round of hiring which allow observing the productivity level of recruited workers holding this qualification.[27] Stiglitz further elaborates on the features of education that make information a natural by-product of its activity of providing skills (including through the self-selection of individuals who, if they are rational, will try and acquire qualification depending on their ability) and explains how education reveals individual productivity in markets with imperfect information.[28]

In view of the above, companies consider qualifications when selecting future employees. The exact individual decision-making process cannot be observed, nor aggregated but one can postulate that companies who require qualifications when advertising a vacancy and/or in the application file will take them into consideration. An ad-hoc query on the Skills Online Vacancy Analysis Tool for Europe yield that 23% of online vacancies include a least one wording directly related to qualifications.[29] This figure is in the same order that the percentage (29%) of SME panel' respondents indicating that they require a qualification when hiring. Empirical works at national level also point toward the fact that qualifications are requested in job applications. For instance, an analysis of the French Ministry of labour[30] found that 38% of the surveyed employers were requesting candidates to include their diplomas and training certificates in their file. A study from Poland shows that in 42% vacancies employers ask for suitable education.[31]

The weakened signal of foreign qualifications

The Eurobarometer on the Thirtieth anniversary of the EU Single Market[32] reports that a recurrent theme across multiple focus groups involved the difficulties individuals faced when their degrees and qualifications acquired in one EU country were not promptly acknowledged or recognised in another. Some participants spoke about challenges linked to the recognition of qualifications as an issue that they faced themselves or knew other people who did.

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[24] This number must represent a mass critical enough to translate into a statistical relationship observable at macro-level through the above referred Eurostat data.

[25] Productivity and quantity of factors (capital and labour) are the sole determinants of the output of the firm in the standard economy theory used by the quoted authors. This is the reason of its mention here, however productivty increase will not be used as an argument to justify this initiative.

[26] Arrow, K.J. (1973) Higher Education as a Filter. Journal of Public Economics, 2, 193-216.

[27] Spence M. (1973) Job Market Signalling; The Quarterly Journal of Economics, Vol. 87, No. 3 (Aug., 1973), pp. 355-374.

[28] Stiglitz J.E. (1975) The Theory of "Screening," Education, and the Distribution of Income. The American Economic Review, Vol. 65, No. 3, pp. 283-300.

[29] Skills-OVATE Skills Online Vacancy Analysis Tool for Europe by Cedefop: Digital Skills and Jobs Platform

[30] V. Remy et M. Bergeat. « Comment les employeurs recrutent-ils leurs salariés ? », Dares Analyses N°064

[31] The other elements requested being: experience (58%), availability (32%), and knowledge of a foreign language (22%). Rynek pracy, edukacja, kompetencje (czerwiec 2025).

[32] https://europa.eu/eurobarometer/surveys/detail/2962 (p. 84).

It is not possible to quantify the weight of the different factors that may hamper EU labour mobility as they relate to individual decisions of workers and/or employers. Some insights can nevertheless be drawn from a survey of the Austrian Chamber of Commerce among their members in 2024. 59.0% view the assessment of professional qualifications as a very or somewhat significant barrier; while 54.4% point to the high rent and housing costs in the region. 47.5% view the evaluation of foreign educational credentials, and 40.0% view the search for and recruitment of non-Austrian skilled workers as a very or somewhat significant problem. The need to make foreign educational credentials more understandable and comparable in terms of the content they cover is raised by nearly half (47%) of the Austrian companies surveyed; 18% do not see this need, and 35% declined to give a specific answer ("don't know"). This example from one Member State gives an indication that employers may have difficulties understanding qualifications acquired in another one. Answers from the SME Panel Consultation point in the same direction: when asked about the specific challenges they face in assessing qualifications from other EU countries, the most frequently cited challenge was insufficient familiarity with foreign education systems.[33]

The signalling role of qualification has also been used in the literature addressing the transferability of immigrants' human capital on the American, the Swedish[34] or German[35] labour markets. In these cases, the authors argue, based on empirical analysis, that foreign education has lower returns because employers refrain from hiring workers with foreign educational credentials that they do not fully understand. Lancee and Bol[36] also attribute the wage penalty observed for non-Western degrees after controlling for different forms of skills to the fact that employers are less likely to be familiar with them.

One can also argue that foreign qualifications as a signal benefit less from the feedback loop described by Spence (1973). The feedback loop occurs when a firm observes the productivity of a hired worker with a qualification and is then able to improve the information conveyed by the said qualification. Qualifications acquired in foreign countries are likely to benefit less from this feedback loop then the domestic qualifications as firms are still likely to recruit fewer workers in a firm holding a qualification from a foreign country.

Policy initiatives and existing EU tools relevant for the comparison of qualifications across the EU[37]

The need to improve the understanding of qualifications and skills obtained in different MS has long been acknowledged, and the EU has invested in a number of policies and tools in that context.

The European Qualifications Framework (EQF) aims to increase the transparency and comparability of qualifications. It connects the national and European qualification levels. The national qualifications are part of national qualifications frameworks (NQFs) and NQF is

[33] See section 2.1. for further details and reference

[40] Tibajev and Hellgen, The Effects of Recognition of Foreign Education for Newly Arrived Immigrants European Sociological Review, 2019, Vol.35, N 4, 506-521

[35] Damelang & Abraham, You CAn Take Some of It with You, Zeitschrift füt Soziologie, 2016, 45(2): 91-106

[36] Lancee & Bol, The Transferability of Skills and Degrees: Why the Place of Education Affects Immigrant Earnings, Social Forces, Volume 96, Issue 2, December 2017, Pages 691–716

[37] This section briefly introduces selected relevant policy initiatives and tools, interacting with the Action 1. More details on them is provided in relevant sections (in particular problem drivers, baseline and options) and in the Annex 7.

referenced to the EQF. The EQF consists of 8 levels from basic (level 1) to advanced (level 8), based on learning outcomes (knowledge, skills, autonomy and responsibility).[38]

The Europass platform[39] operates as a one-stop shop for different skills, qualifications and labour mobility tools, including an e-portfolio with a smart CV, information on qualifications (from NQF registers) and learning opportunities (from national registers/databases) and an infrastructure for digital credentials (the European Digital Credentials for Learning).

ESCO (European Skills, Competences, Qualifications and Occupations) is the EU's multilingual classification of skills, competences, qualifications and occupations, designed to improve transparency and matching across EU labour markets. It enables employers and employment services to describe vacancies and worker profiles in a common language that crosses national boundaries.

The use of these tools is voluntary which limits their potential to fully address the lack of understanding of a qualification acquired in another Member State (for a full description of these limitations, see Section 2, sub-Driver 2.1). Annex 7 provides a full overview of these tools, as well as of the various actors involved in recognition and assessment of qualifications obtained in other MS (e.g. ENIC/NARICs) and more recent developments related to digitalisation which have impacts on portability of qualifications (e.g. EUDI Wallet and DC4EU pilot).

2.2. What is the problem?

The portability of qualification and skills is limited across the EU and makes it more difficult for employers to hire, and EU mobile and cross-border workers to get hired.

Employers and other labour market actors that need to read, understand, and verify qualifications obtained in another MS (e.g. public employment services matching jobseekers to jobs, recognition authorities in case of regulated professions), face two interconnected problems of **information asymmetry**. The first one related to uncertainty about what a qualification **contains** (e.g. the learning outcomes). The second one stems from the technical 'envelope' (for example paper vs digital format) as well as its level of security (for example, seal on paper or encrypted digital credential) that may lead to adverse selection (e.g. risk of fraud).

Employers navigate a hiring process, where they may lack understanding of the language the diploma is issued in and the type of information the qualification contains may be very different from the national context. As shown in the consultation, labour market actors do not understand qualifications from other MS well enough to assess what the holder truly knows or is able to do – i.e. the qualification level and content.[40] Confidence of SMEs falls significantly when assessing qualifications from other EU countries, compared to from their own country. In the SME Survey,[41] for qualifications from other EU countries, 31 (out of 159) report feeling very confident, 86 (out of 159) are confident, compared to 84 (out of 159) feeling very confident and an additional 59 (out of 159) feeling confident in assessing qualifications from their own country. The most frequently cited challenge when assessing qualifications from other EU countries by SMEs, was insufficient familiarity with foreign education systems (70 out of 159), difficulty verifying the authenticity of qualifications (63 out of 159) and language

[38] EQF is in place since 2008 and was revised in 2017.
[39] Decision of 2018 (replacing the Decision of 2004)
[40] SPI Consultation Social Partners; Expert workshop: Recognition of VET qualifications for the purpose of worker mobility.

barriers (61 out of 159).

The Europass evaluation[42] pointed out that verifying the authenticity of a candidate's qualifications is very important for employers when hiring (71% of respondents consider it very important or somewhat important). At the same time, 59% of the employers consider the process of verifying the authenticity of candidates' qualifications or experience to be often or sometimes difficult and slightly more than half of them (54%) consider receiving digitally certified documents proving qualifications to be important.

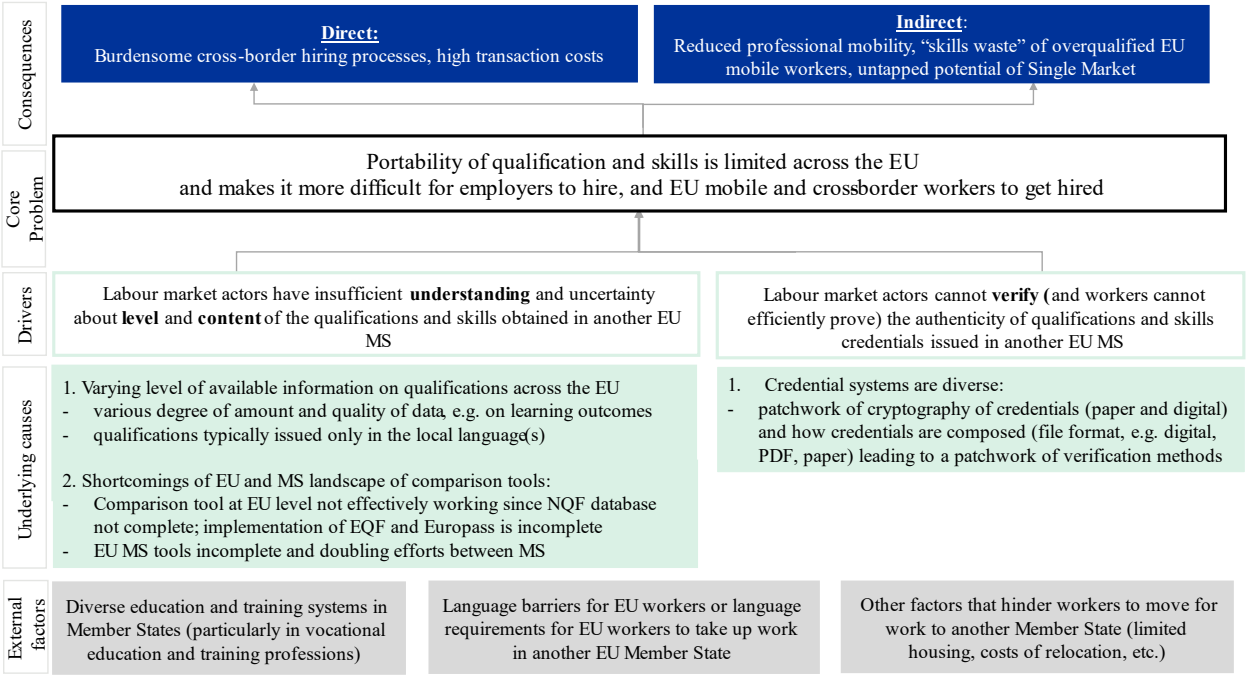
As reported by stakeholders consulted in the supporting study, non-digital credentials are subject to an increased risk of fraud. Over half of the respondents (298 out of 574) to the survey of issuers of qualifications (strongly) agreed that paper certificates cause problems with verification checks, and five submissions to the Call for Evidence reported that remote verification is "impossible" with analogue systems.[43] The concerns about the growth of diploma mills and fraudulent qualifications across Europe were raised in the Council of Europe's Recommendation on countering education fraud and the Lisbon Recognition Convention Committee.[44] Empirical analysis by CIMEA[45] similarly documents a thriving landscape of forged and fabricated credentials, distinguishing between "fake degrees" issued by entirely fictitious institutions and "fraudulent degrees" that mimic genuine ones, and notes that new digital tools are making both easier to produce and harder to detect.

Imperfect information about the level and content of qualifications acquired in another MS and the format in which they are presented may reduce trust, increase transaction costs and make acceptance and recruitment decisions more difficult. Further, they may lead to unnecessary and burdensome procedures and to suboptimal outcomes for both workers and employers.

The problem tree (*diagram 1*) illustrates the problem, main drivers, their causes and consequences.

[42] EUR-Lex - 52024SC0071 - EN - EUR-Lex
[43] Call for evidence submissions, Public consultation.
[44] Council of Europe Recommendation on countering education fraud - ENIC-NARIC
[45] Finocchietti and Lantero, 2025 https://rivistauniversitas.it/document/r/rivista_01_2025.pdf

Diagram 1: Problem tree



The problem identified above has distinct implications for different stakeholders.

Employers

Employers may spend time trying to understand qualifications coming from different education and training systems, have to invest ex-post recruitment in supplementary training when skills cannot be verified, and face significant indirect and opportunity costs.

The determination of the exact number of employers who undertake to verify the qualifications of the applicants acquired in another MS is not possible. No empirical study has been identified on this matter and since this would mean a controlled experiment on a representative sample of EU companies it was not possible to undertake such an analysis for this impact assessment. Having said that using job scraping,[46] from the CEDEFOP Skills Online Vacancy Analysis Tool for Europe yield the result of about one quarter of the job advertisements containing a reference to qualification(s). One can assume that EU employers mentioning qualification when publishing a vacancy will take this into consideration and verify the qualification at least of the selected applicant. Estimating the number of verified qualifications to about one quarter of the flow of mobile workers per year seems a reasonable (low range) assumption. This estimate could even be considered as conservative as it takes as a basis only the flow of mobile workers (hence mobile workers who apply to change jobs in the MS they already reside are not counted) and does not include cross-border workers.

In addition, reduced access to talent, in a context where many of them are already not finding candidates with the right skillset, worsens existing labour and skills imbalances. In the Eurobarometer 2023, skills shortages were reported as the most serious problem by 53% of micro companies, 65% of small companies, 68% of medium-sized companies, and 72% of

[46] Job scraping or automated job board scraping is a process used to collect data on job titles and descriptions. Eurostat together with CEDEFOP are using these tools to produce skills related experimental statistics. For methodology and limitations see WIH - OJA Data | Eurostat CROS

large companies.[47] In the 2025, out of 423 occupations identified as being in shortage in at least one country, 416 (or 98%) also appear as surplus occupations in at least one other country. Even in case of one of the occupations most frequently reported as being in shortage – welders and flame cutters (flagged by 22 countries), two countries reported a surplus.[48]

Potential EU mobile workers

The most affected are individuals seeking to access or exercise a **regulated profession** in another MS for whom the recognition of their qualifications is compulsory. Many MS still require physical submission of documents as fully digital procedures are not always available. For applicants, this reliance on physical documentation increases costs, administrative burden, and delays.[49]

Individuals wishing to move and work in a **non-regulated profession**, may also be requested to undertake a qualification assessment procedure, not for legal reasons but to provide prospective employers with further information on the level, content and the authenticity of their qualifications, which are also costly and entail significant administrative burden. Around one in three of respondents in the SME panel request some kind of qualification assessment procedures to verify the authenticity of the qualifications (52 out of 159), or to better understand what candidates have learnt compared to domestic equivalents (42 out of 159) in non-regulated professions. In response to employers' request to obtain some formal assessment of qualifications in non-regulated professions, workers use recognition pathways designed for other purposes, such as statements of comparability issued by ENIC-NARIC centres.[50] Most ENIC-NARIC centres were not able to estimate the percentage of statements issued for non-regulated professions. However, in countries where estimates were submitted, they represented more than half of all statements (*see Annex 8, Table 1*).

In some instances, although not required from hiring purpose, the necessity of the formal assessment may stem from the prevailing collective bargaining agreement - determining the working conditions. For example, in Italy, while contractual grading is determined primarily by the tasks assigned rather than by formal qualifications, a comparability statement or qualifications mapped to the EQF is often used to facilitate recruitment by making workers' qualifications and skills obtained in another EU MS more transparent and understandable to employers. In Poland, the collective agreements also link grading and remuneration to education levels, seniority and qualification requirements for specific positions, but they generally do not address the treatment of qualifications obtained in another MS.[51]

The financial burden of these processes was one of the most cited challenges in the call for evidence, and the cost falls often on the workers themselves. While most respondents reported spending less than EUR 250, cases around EUR 1 000 were also reported. Beyond direct costs, nearly half of the respondents to the consultation reported processes lasting longer than three months, generating significant lost opportunity costs (periods without income).

Such costs can be difficult to bear especially for individuals from vulnerable backgrounds and younger workers. Young people, especially those entering the labour market, are likely to be more affected since qualifications are likely to play a stronger role in their ability to access

[47] https://europa.eu/eurobarometer/surveys/detail/2961
[48] European Labour Authority (2026), EURES – Report on labour shortages and surpluses – 2025, Publications Office of the European Union, Luxembourg.
[49] ECA special report 10/2024 on the recognition of professional qualifications in the EU
[50] The primary purpose of ENIC-NARIC statements is for further learning. When applied for employment in non-regulated professions, the criteria or procedures are not changed and don't consider labour market aspects.
[51] A more comprehensive overview of how collective agreements refer to qualifications across MS is provided in annexe 8, table 8.6: Summary of the Eurofound reports on collective agreements in MS.

entry-level jobs which per definition do not require professional experience. In addition, the cost and length of the recognition procedures are likely to weigh more on them than on workers already employed. However, the available data do not allow to estimate the extent of this happening.

Issuers of qualifications

Issuers of qualifications are frequently contacted by third parties, such as employers, recognition authorities or other organisations, to verify the authenticity of qualifications. According to the Qualification Issuers Survey, 290 out of 574 respondents (50.5%) reported having received requests from third parties to verify the authenticity of diplomas. The annual requests per issuer are estimated in range from 16 to 30 contacts per year, with the lower and upper values reflecting different interpretations of the open-ended "once a week or more" category.[52]

2.3. What are the problem drivers?

The underlying drivers stem from market failures related to an imperfect information on qualifications and skills. This leads to asymmetries of information on **level and content** of qualifications (driver 1) and on the **authenticity** of the qualification (driver 2).

The two drivers are mutually reinforcing. Because of uncertainty on the level or content of a qualification and skills (Driver 1), the same applicant may face additional hurdles about its authenticity when presenting their qualifications to an employer in another Member State (Driver 2). Within each MS, a highly diverse landscape of qualifications exists. The fragmentation of IT systems being developed in an uncoordinated and un-interoperable way is making more complex for employers to verify easily digital qualifications (Driver 2) and access its content (Driver 1).

Driver 1: Labour market actors have insufficient understanding and uncertainty about level and content of the qualifications and skills obtained in another EU MS

The education and training systems, as well as what credentials delivered, are organised differently across 27 MS, since this falls under the responsibility of the EU MS.[53] As a result, when an individual with qualification from another MS applies for a job, the employer will receive qualifications credentials that diverge in language, content, descriptions compared to a job application from a native worker. This is a problem for all, regulated and non-regulated professions.[54]

The qualifications credentials are typically written in the local language(s) and the same time across the EU, qualifications contain various amount and quality of data, e.g. on **learning outcomes (**see illustrative example).

Illustrative example:

Qualification from Bulgaria in cybersecurity (extracted from Europass):[55]

[52] The annual frequency of such contacts was estimated by annualising the survey response categories on contact frequency (i.e. once a week or more, several times per month, a few times per year, once a month, and less than once a year).
[53] Education and training are enshrined as supporting competence of EU in Article 6 of TFEU.
[54] In regulated professions, imperfect information also affects the efficiency of recognition procedures (see IA for Action 2 of the SPI).
[55] Find a course | Europass

Title: Киберсигурност
Awarding body: Technical University of Varna
Learning outcomes: Придобиване на знания и умения по: Киберсигурност
Thematic area: Проектиране и управление на бази данни и мрежи
Level:

Machine translated with AI-based online tool:

Title: Cybersecurity
Awarding body: Technical University of Varna
Learning outcomes: Acquisition of knowledge and skills in: Cybersecurity
Thematic area: Database and Network Design and Management
Level:

Thus, even with AI-translation, the "signal" of the foreign qualification is limited, if the learning outcome is described in a generic way, not telling the employer in another MS what tasks the person can actually perform and at which competency level this qualification was done.

A good example of learning outcomes, applying the applicable guidelines[56] and enhancing the signalling role of qualifications, could be:

Title: Cybersecurity
Awarding body: Technical University of Varna
Learning outcomes:

The qualification holder (EQF/NQF 4) is able to ensure the smooth running of IT systems. They can develop, adapt and/or maintain these and look after users. He/she has practical knowledge from computer science, electrical engineering and production engineering.

He/she works independently and/or as part of a team in companies that develop and offer information and communication technology products and services or in public authorities and institutions. This is school based initial vocational training.

Optionally, the higher education entrance qualification can be acquired.

The qualification holder can:

a) analyse, assess and optimise operational processes, workflows and framework conditions with regard to the use of IT systems;
b) design work processes using technical and organisational aids;
c) develop and adapt application software for operational processes;
d) analyse, plan, build, commission and network IT systems;
e) analyse, build, connect to IT systems, programme and commission automation systems;
f) plan, create and maintain databases using appropriate programming languages and software development tools;
g) secure the energy supply for IT systems and optimise energy consumption;
h) observe industry and legislative standards and regulations and use of technical rules and regulations;
i) observe data security, data protection and copyrights;
j) responsibly shape and reflect on his/her working environment and processes;

[56] Under the EQF and Europass Advisory Groups European guidelines have been developed on short descriptions of learning outcomes in the context of publishing transparent information about qualifications, which also help to make qualifications more comparable across the EU.

k) apply standards and guidelines to ensure process and product quality; l) cooperate and communicate in teams; m) analyse customer requirements and advise customers also in English; n) obtain, prepare and present information and documents in English in relation to the activity

For an employer, what matters is to compare and understand how the foreign qualification credentials/learning outcomes relate to their national system. The EU and MS have developed transparency tools that aim to ensure reliable information on qualifications from across the EU and allow, to a certain extent, their comparison but their implementation is incomplete.

The transparency tools are the European Qualifications Framework, Europass and ESCO, which are closely interlinked. The backbone of this toolbox is the European Qualifications Framework (EQF), in place since 2008 (and reviewed in 2017), aiming at enhancing the transparency, comparability and portability of people's qualifications. The EQF is a reference framework consisting of 8 levels of proficiency of learning outcomes (knowledge, skills, autonomy and responsibility) that operates as a translation tool between national systems and supports both lifelong learning and employability. MS are invited to relate their national qualifications frameworks (NQFs) to the EQF, in order to establish a clear and transparent relationship between their national qualification levels and the eight EQF levels, through a process called referencing.

The referencing process uses the EQF referencing criteria as assessment benchmarks. The 10 referencing criteria include the way in which MS use the learning outcomes approach, how qualifications are included in NQFs and how qualifications are quality assured in line with national and international standards. National quality assurance bodies and international experts (at least two) must sign off each referencing report, which needs the endorsement of the EQF Advisory Group through a specific peer review process. Overall, the referencing criteria and the governance of the EQF referencing process provide a solid foundation for trust in NQFs and the EQF as a whole, as also confirmed in the EQF evaluation of 2024.[57]

However, there is diversity and unevenness across the EU in terms of the implementation of the EQF through NQFs. While all NQFs are based on learning outcomes, which is a condition for EQF referencing, they vary in their maturity and the amount and quality of information they provide on qualifications.

Cedefop has provided information on the stage of development of NQFs.[58] **Eighteen MS** have reached the **operational stage:**[59] their NQFs provide a map of NQF qualifications and a reference point for development and review of standards and curricula; NQF levels are indicated on certificates and diplomas, qualifications registers/databases are functional, and quality assurance mechanisms are in place. Other **nine MS**[60] are in the **activation phase** meaning that the implementation structures and the criteria and procedures for allocation of qualifications to levels have been set, and the main instruments are being put in place (e.g. databases, quality assurance arrangements); awareness of end-users is gradually growing.

Another weakness in the use of the EQF and NQFs is the uneven updating of the original referencing. The recommendation to update the referencing was included with the revision of the EQF Recommendation in 2017, while mentioning that it should be done with due regard to the national context. However, as the EQF evaluation concluded, particular focus would be

[57] Evaluation of the Council Recommendation of 22 May 2017 on the European Qualifications Framework for lifelong learning, SWD(2024)141
[58] Cedefop, National Qualifications frameworks (NQFs) online tool,
[59] BE(NL), CZ, DK, DE, EE, FR, IE, LU, LV, LT, MT, NL, AT, PL, PT, RO, SI, FIN
[60] BE(FR), BG, EL, ES, HR, HU, IT, KY, SE, SK

needed by MS to ensure referenced reports are up to date. In 10 of the 13 MS that have not updated their referencing yet, the initial referencing report dates back 10 years or more,[61] while 14 MS have updated their referencing report since the EQF revision of 2017.[62] While MS agreed to possible criteria indicating the need to update referencing reports (such as a national legislative and institutional developments in NQFs), implementation depends on voluntary choices by MS as to when review and update their EQF referencing; decisions to update referencing do likely depend on prioritisation and available resources at the national level.

These weaknesses affect the usefulness of the EQF for employers, who at the same time are interested in reinforcing the tools. Eurochambres, an EU-level association of employers exemplified this in their written input: "*Companies have an interest in ensuring that qualifications obtained in other MS are transparent and comparable. This is particularly relevant in border regions, where businesses rely on daily or seasonal cross-border mobility of workers. Existing transparency instruments such as the European Qualification Framework (EQF) and National Qualification Frameworks (NQFs) provide an important foundation and should be further strengthened and better connected, including through improved data exchange at EU level*".

The **Europass platform** intends to operate as a one-stop shop for skills and career management, with different skills, qualifications and labour mobility tools, including an e-portfolio, information on qualifications (from NQF registries) and learning opportunities, an infrastructure for digital credentials (European Digital Credential for Learning infrastructure) and Europass supplements with a common structure and template: Diploma Supplements (higher education), Certificate Supplements (VET), and Europass Mobility (learning mobility). Thanks to their standardised format, the supplements improve the transparency and comparability of qualifications in an international context, supporting skills portability.

The data shared with Europass consists of an EU database on qualifications[77] and the data is also republished as open data on the EU open data portal. However, ensuring that databases and registers of qualifications are connected to the Europass platform was still mentioned as an area of attention by the EQF evaluation. So far 14 MS share data on qualifications with the Europass platform,[78] while an additional two MS[79] are testing the system. The other MS have either not connected their database with Europass,[80] or do not have a database at all.[81] Among the 14 MS that do share qualifications data, these do mostly not cover the full scope of the NQF (some MS share only VET or higher education qualifications), do not contain permanently updated datasets, and regularly contain poor data quality, in particular on learning outcomes. Differences in implementation can be explained by the voluntary nature[63] of these activities and do likely depend on prioritisation and available resources at the national level. Transparency, recognition and matching tools, have more recently been complemented by instruments facilitating the interoperable digitalisation of information related to qualifications and skills. These include the European Digital Credentials for Learning (EDC)[82] as a multilingual format for electronically sealed, digital presentations of learning credentials. The EDC Infrastructure is part of the Europass platform and includes ready-to-use tools for building, issuing and viewing these digital credentials. Issued digital credentials can be stored directly in the My Library section of a person holding a Europass account. EDCs are signed using an electronic seal, ensures credential integrity and which must be acquired from Trusted Service Providers, in line with the EU legal framework for electronic seals, the

[61] BE (fr), BG, CZ, DE, EE, EL, HU, LU, PL, SI, SE

[62] NL, LV (2019), IE (2020), FR (2021), IT (2022), BE(nl), MT, DK (2023), LT, HR (2024) and RO (2025)

[63] While the Europass Decision stipulates the tasks by the Commission and the MS, its article 7 paragraph 2 specifies that the provision of information to the Europass online platform under Article 3(2) shall not create any additional obligations for MS.

eIDAS Regulation. EDCs are designed to promote cross-border recognition of credentials. To this aim, they are based on a multilingual European standard for semantic interoperability,[83] the European Learning Model **(ELM)**. However, EDC is a voluntary tool for any organisation wishing to issue digital credentials. It was not designed to serve as the single solution for the digital transformation of all credentials across the Union. Moreover, it was developed before the EUDI Wallet and is not linked to the digital identity of credential holders, nor does it provide the same safeguards against fraud. Upgrading EDC to meet such requirements would require substantial investment. Therefore, EDC is not currently suitable for a Union-wide rollout.

Some MS have put in place their own measures to overcome information asymmetry on qualifications and skills obtained in another EU MS (and beyond). Several MS have developed databases of foreign qualifications helping the understanding and recognition of these by employers and other stakeholders. These databases do generally have a broad geographic scope, including EU and non-EU qualifications.[64] MS databases and/or country profiles that include EU qualifications are those of the BE French-speaking Community, France, Germany, Greece, Ireland, Italy, Netherlands, Poland and Sweden[65]. For Ireland, the Netherlands, Poland, and Sweden, - the EQF level of qualifications functions as reference point. In Ireland an open database of foreign qualifications run by the Quality and Qualifications Ireland (QQI) covers over 2,000 qualifications from across the world, mapped to the Irish NQF. The Polish "Qualificator" database allows users to obtain an automated comparability statement with a Polish reference qualification, while the Swedish database provides for comparisons between foreign qualification types (e.g. a bachelor's in science) in relation to Swedish qualification types. According to the German Recognition Act, since 2012 all holders of a foreign professional qualification have a legal right to have their professional qualification assessed for equivalence with a corresponding German reference qualification, including for non-regulated professions. The German BQ Portal supports this right by focusing on comparing curricula (learning activities), but it does not use the EQF levels as reference point. Similarly, the Anabin database facilitates classification of foreign qualifications for regulated professions within the German education system, also without reference to the EQF.

While these different databases fulfil different national needs, they do not use the same terms and definitions, they do not use the same reference points, and there is no coordination between them. Taken together, there is fragmentation, a lack of interoperability and duplication of work, time and resources by MS.

Driver 2: Labour market actors cannot verify (and workers cannot efficiently prove) the authenticity of qualifications and skills credentials issued in another EU MS

As noted in the Europass evaluation, "(…) employers face difficulties when verifying the authenticity of candidates' qualifications or experience (59% of them consider this process to be sometimes difficult or often difficult). Verifying the authenticity of a candidate's qualifications is very important for employers when it comes to hiring (71% of respondents consider it very important or somewhat important). Slightly more than half of them (54%) consider receiving digitally certified documents proving qualifications to be important".

[64] See Cedefop National qualifications frameworks (NQF) online tool: www.cedefop.europa.eu/en/tools/nqfs-online-tool/overview[64] See Cedefop National qualifications frameworks (NQF) online tool: https://www.cedefop.europa.eu/en/tools/nqfs-online-tool/overview.

[65] Non-exhaustive list, based on preliminary findings of the ENIC Bureau and NARIC Advisory Board Preliminary survey conducted in 2025.

The education and training systems are organised differently across 27 MS. Combined with the diversity of credential systems and related verification methods across MS, it makes it difficult for labour market actors to verify the authenticity of credentials.

This is a problem across all professions, regulated and non-regulated. In fact, for the regulated professions, for which a recognition process is observable, authenticity verification is one of the most resource-intensive elements of the recognition procedure, and a recurring source of both direct and indirect delay. In regulated professions, trust between MS is the foundation on which the recognition system built by Directive 2005/36/EC (PQD) rests. The general system, the automatic recognition regime for sectoral professions and the various forms of administrative cooperation established under the Directive all depend on the assumption that a qualification document presented by an applicant genuinely corresponds to training actually completed and genuinely awarded by the institution named on it. Where that assumption cannot be relied upon, the whole architecture of mutual recognition is put at risk. Competent Authorities (CA) survey evidence collected for the SPI Action 2 impact assessment confirms that the time required for authenticity checks is cited as a distinct source of delay in recognition procedures, and that core assessment activities, including document authenticity checks alongside equivalence assessment and drafting of decisions, frequently require 30 or more man-days annually. This burden is compounded by the continued reliance on paper-based documentation in many MS and professions, since paper documents are not inherently verifiable and require additional authenticity checks that are increasingly complex in light of evolving fraud risks, including AI-based falsification. The consequences extend beyond CA workload: the survey evidence also indicates that a degree of institutional caution, including doubts about the authenticity of documents, contributes to the broader pattern of procedural prudence that CAs apply when assessing qualifications obtained in another Member State, even though this is not formally identified as a problem driver in the impact assessment.

The shift to interoperable, verifiable digital attestations is the single most consequential structural response available to this problem. In case of regulated professions, for example, an automatic authenticity checks at the point of verification thanks to the digital attestations, rather than through a subsequent, resource-intensive process, would remove the need for the manual, document-by-document authenticity checks that currently consume significant CA staff time. This is reflected in the policy options considered for Action 2, which assume as a pre-condition that as a result of Action 1 a legal obligation would be set on MS to issue qualifications as interoperable digital attestations meeting common EU requirements on verifiability, authenticity, trust and interoperability, and a corresponding obligation on host MS to accept such attestations as valid evidence without further authenticity confirmation from the home Member State.

The **rollout of digital credentials** has been uneven between MS so far. Based on Annex 8.3 table 2 on digital credentials[66], an initial assessment of **MS readiness to issue digital credentials** was developed. The variables used were the digital credentials tools that are in use and the infrastructure that is already in place, the digitalisation status (whether digital credentials are actually in use or not) and the digital diploma legislation (whether an enabling legal basis exists or not for their issuance). This led to an identification of three types of MS:

- **Type A: Advanced (6 MS):** EE, ES, HR, IT, LT, NL. National or multi/regional infrastructure in place and confirmed use.
- **Type B: Developing (14 MS):** BE, BG, CZ, DK, FI, FR, LU, LV, MT, PL, PT, RO, SE, SI. Some infrastructure present but use limited, partial, or unconfirmed — or partial use without stable national infrastructure.

[66] Developed based on structured mapping of the study supporting the impact assessment, the survey of the EQF NCPs, Cedefop and ReferNet survey on digital credentials.

- **Type C: Early development (7 MS):** AT, CY, DE, EL, HU, IE, SK. No national infrastructure; where a tool type is coded, reliance is on EU-level tools only with no confirmed national uptake.

This progressive digitalisation of qualification credentials in MS is occurring in an uncoordinated manner. Achieving interoperability requires technical alignment[67] and shared semantics (e.g. common skills taxonomies and qualification descriptions). Many systems rely on national standards or closed networks, which hinder EU-wide scalability. This entails the risk of a fragmented digitalisation across MS that could ultimately make even more difficult for employers to simply read and verify the qualification credential acquired in other MS because they would not have at their disposal the software necessary to understand the digital credentials.

A key development in the context of interoperable digitalisation has been the Regulation on electronic identification, authentication and trust services (eIDAS) of 23 July 2014 (Regulation (EU) No 910/2014). The eIDAS Regulation has created standards for electronic signatures, qualified digital certificates, electronic seals, timestamps, and other proof for authentication mechanisms which enable electronic transactions, with the same legal standing as transactions performed on paper. The eIDAS Regulation was reviewed in 2024. The eIDAS 2.0 includes the European Digital Identity Wallet (EUDI Wallet), which requires that MS have a compliant wallet available by the end of 2026, the use of which by citizens is voluntary. Each version of the wallet will be interoperable and will work across the EU. EUDI Wallets will be able to store and share a wide range of digital documents, including driving licence,[68] social security documents[69] and the digital travel credentials[70]. Qualifications are listed among the individual's attributes that could be included in an EUDI Wallet. To this end however, specific sectoral requirements (e.g. on the trust framework, the attestation content, the governance) need to be laid down in sectoral legislations, as it is the case of the driving licence and will be proposed for social security documents.

To test the use of the EUDI wallet in relation to the issuance, storage and presentation of verifiable digital credentials through wallet-based solutions for educational qualifications and learning achievements, the **Digital Credentials for the European Union (DC4EU)** was conducted as a large-scale pilot project.[71] The target system explored by the DC4EU project was an integrated digital ecosystem that addresses potential fraud and credential validation challenges, complies with European educational and professional qualification standards, increases acceptance among all relying parties (employers, educational institutions, professional bodies) and supports the free movement of professionals and students across the EU. The DC4EU framework for educational and professional qualification credentials is based on an architecture that includes the European Learning Model (ELM) as semantic foundation, and the W3C Verifiable Credentials Data Model for technical implementation.

[67] In the survey of issuers of qualifications, among the 89 respondents who already issued verifiable credentials, 14 issued W3C Verifiable Credentials, 12 issued JSON Web Tokens and JWS, 1 issued IETF SD-JWT VC, 13 another format (in particular EDCs which are W3C Verifiable Credentials and Open Badges which are transitioning towards the W3C Verifiable Credential format or a combination of formats, including XML or JSON metadata in a signed PDF) and 49 did not know.
[68] Directive (EU) 2025/2205
[69] With the upcoming ESSPASS proposal
[70] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52024PC0671
[71] MS involved include AT, BE, CZ, DE, DK, EL, ES, FI, FR, HU, IE, IT, LT, LU, MT, NL, PL, PT, RO, SE + NO, CH, UA (14 MS + NO and UA were involved for the pilot on education attestations, the others piloted only the social security use case). The types of organisations include higher education institutions (DK, EL, FR, IE, IT, LU, PT), a combination of Higher education institutions and Ministry of education and training (ES, NL, RO), a Ministry/agency only (FI, SE, NO, UA), a foundation working on education (MT), and the National Information Processing Institute supervised by the Ministry of Education and Science (PL)

The EUDI Wallet complements the Single Digital Gateway Regulation (SDGR) (Regulation (EU) 2018/1724) which facilitates the online access to information, administrative procedures, and assistance services that EU citizens and businesses may need in another EU Member State. It includes procedures for the academic recognition of diplomas, certificates or other proof of studies or courses. There is no procedure today in the SDGR to request a diploma for the purpose of applying for a job in another EU MS. To implement the SDGR, the Once-Only Technical System (OOTS) was created as the core infrastructure. It aims to save EU citizens and businesses time and money by allowing the automatic exchange of official documents and data (such as diplomas, certifications or permits) between the 'competent authorities' that issue this data and the public body requesting the data. The ELM was recently complemented with new data fields to cover the education-related use cases from the OOTS, allowing for the exchange of structured data.

In addition, paving the way for a potential inclusion of qualification in the EUDI Wallet, a common floor of standardisation is already in place: all MS have referenced their NQFs to the EQF. MS are aware of the European Learning Model (ELM), which provides a shared vocabulary for describing learning outcomes. As indicated earlier, **14 MS share data on qualifications with the Europass platform,**[72] while an additional two MS[73] are testing the system and are therefore **able to share data in the European Learning Model (ELM) format.**[74] As of July 2026, the other MS have either not connected their database with Europass,[75] or do not have a database at all.[76] **All MS have been invited to training sessions on the ELM over the years** and MS are kept informed and shape the changes in the data model via the EQF AG and the Europass AG. ELM has also been discussed to **become a semantic model to be supported in OOTS for exchanging structured data for the studying procedures**. While a formal decision has not yet been made for its inclusion, there is a strong awareness of the semantic model across the MS in the SDGR group.

All 27 MS participate in the **implementation of Europass** and discuss the topic of **digital credentials in the Europass AG** and are familiar with verifiable digital credentials. **18 countries piloted the Europass digital credentials** between 2019[77] and the official launch of EDC in 2021.[78] As the implementation of EDC is voluntary and open, there is no official MS participation in its implementation. No complete data of EDC issuers exist due to the absence of tracking of the issuers and users. Certain MS, such as MT,[79] LU[80] and ES[81] are among the most active EDC users.

[72] AT, BE (nl), CZ, DE, EE, FR, IE, LV, LT, MT, NL, PL, SE, SI
[73] BE (fr), EL
[74] Two other MS (HU, PT) used to share qualifications information with Europass in legacy data formats that are no longer supported and have not yet started to use ELM
[75] DK, ES, FI, HR, HU, PT, RO, SK
[76] BE (de), BG, CY, IT, LU
[77] Europass Digital Credentials Infrastructure | FUTURIUM | European Commission and the Europass evaluation report: EUR-Lex - 52024SC0071 - EN - EUR-Lex
[78] Launch Event Report - European Digital Credentials for Learning | Europass
[79] European Digital Credentials for Graduates - Newspoint - University of Malta
[80] La formation professionnelle adopte les European Digital Credentials, des attestations de réussite numériques reconnues en Europe - News - Education nationale, Enfance et Jeunesse - Luxembourg and La mise en œuvre des attestations de réussite numériques dans la formation professionnelle sacrée « meilleur projet de transformation digitale de l'année » - Actualités - Education nationale, Enfance et Jeunesse - Luxembourg
[81] Proyecto CertiDigital | Credenciales Digitales para el Sistema Universitario Español

On the readiness regarding the implementation of the **EUDI Wallet**, **no MS has yet certified a production wallet compliant with eIDAS 2.0**, which can be explained by the fact that the latest specifications detailed in the Commission Implementing Regulation of 15 July 2026[82] are yet to enter into force and the fact that MS have until December 2026 to offer an EUDI Wallet to their population. During the EUDI Wallets launchpad event of December 2025,[83] "the demos revealed different levels of readiness across MS, alongside a powerful opportunity: some countries are ready to lead, while others bring complementary strengths, sectoral expertise, or user reach".[84] Figure 1 presents the overview of MS maturity and readiness in December 2025.

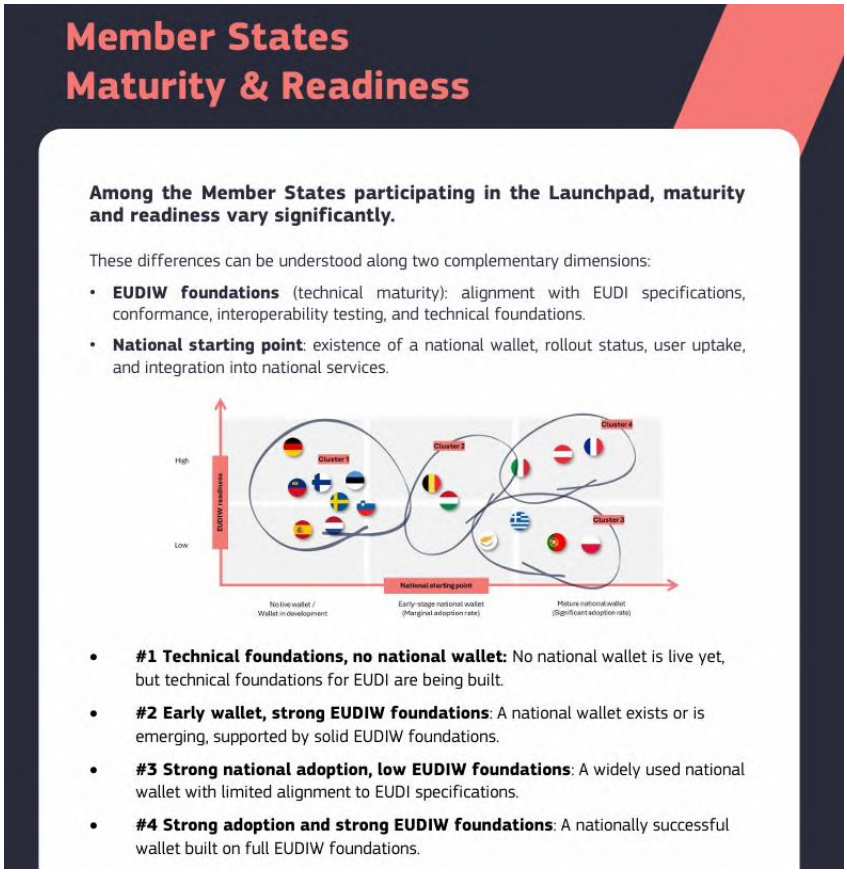


Figure 1 - MS digital wallet readiness (from the 2025 EUDI Wallet launchpad event key takeaways)

The analysis of MS readiness was further refined when cross-checked with DC4EU data and data from the EMREX network. On **education credential infrastructure** the ordering is close to inverted: several of the MS operating the most mature national diploma registers, sector agencies and student data exchange arrangements are among those least advanced on the wallet substrate into which those credentials would have to be issued. Different governance exists across the 27 EU MS, which also needs to be accounted for when proposing issuance solutions of qualifications. This analysis led to the clustering of MS into four groups (see point 5 in Annex 8 for additional information):

- **Cluster A (4 MS):** DE, DK, FR, IT. Wallet-ready front-runners (production or public sandbox)

[82] Implementing regulation - EU - 2026/1730 - EN - EUR-Lex
[83] EUDI Wallets Launchpad - EU Digital Identity Wallet -
[84] https://ec.europa.eu/digital-building-blocks/sites/download/attachments/924975727/EUDI%20Wallets%20Launchpad%20-%20Event%20Key%20Takeways%20report.pdf

- **Cluster B (4 MS):** EE, FI, NL, SE. Education-credential leaders, slower wallet substrate
- **Cluster C (9 MS):** AT, BE, EL, ES, IE, LU, MT, PL, PT. Engaged fast followers (Tier 2 eID app or strong governance role)
- **Cluster D (10 MS):** BG, CY, CZ, HR, HU, LT, LV, SI, SK, RO. Building / lagging substrate

Issuance is at the same time organised around two persistent topologies, with the trust chain running either through a **national research and education agency acting as an aggregation layer for autonomous institutions**, or through **a ministry or a central diploma register**, and both are expected to coexist. The consequence for the labour market actors of the digitalisation described above is that the ability to verify a qualification depends less on the qualification itself than on where it was awarded and on the sequencing of national digital programmes pursued for unrelated reasons.

In addition, there is the issue of lack of legal clarity regarding the acceptance of digital documents from another MS, leading to a digital trust gap where even when digitally issued credentials are available, they may not always be understandable, verifiable and trusted across MS. The Beyond DC4EU report[85] highlights the risk of fragmentation, writing that "If MS develop divergent interpretations of which credentials must be accepted and under what conditions, cross-border recognition risks becoming contingent on bilateral practices rather than on the uniform application of Union law. In such a scenario, a credential that is routinely accepted in one Member State may be questioned or rejected in another, not because of differences in cryptographic security or issuance quality, but because national authorities have formed different views on acceptance obligations, liability exposure, or supervisory responsibility. Pilot experience indicates that once such interpretations are embedded in operational systems and verifier workflows, they are difficult and costly to reverse".

Overall, this complex landscape shows that there is a diversity of credentials systems in the EU, complicating authenticity checks, and while digitalisation offers a way to simplify authenticity checks and at the same time improve the availability of standardised and reliable information on qualifications, the take up among the MS is varied, and even with tools such as EUDI Wallet, Europass and the SDG interoperability is not possible to achieve without sectoral legal standardisation.

Stakeholder views: When asked about concerns regarding EU-level digital credentials, 351 out of 581 public consultation respondents cited technical complexity or lack of compatibility between systems, and 303 out of 581 pointed to data privacy or security concerns. In the issuer survey, 228 of 574 identified limited technical capacity as the main barrier to digitalisation.

2.4. How likely is the problem to persist?

Evidence available from across all stakeholder consultation activities indicates that the problem and its drivers are likely to persist in the short- to medium-term without EU action. **The imperfect information on qualifications obtained in another MS will continue to complicate hiring procedures for employers and mobile workers.**

MS have made efforts to develop databases which facilitate comparability with non-national qualifications.[86] However, these national efforts would continue to **duplicate work and cost**

[85] https://www.3cl.org/wp-content/uploads/2026/01/Beyond-DC4EU-Final-Report-January-2026-1.pdf

time and resources for individual MS. The only current EU level database on qualifications is the Europass platform. However, without further measures its completion will be slow and its effectiveness as a tool for labour market actors to compare qualifications from other MS to national qualifications will remain limited.

Despite **MS advancing in digitalisation efforts, progress remains uneven and risks producing a growing divide between early and late adopters**. In the long term, in the absence of EU coordination and standards, fragmentation would persist and deepen as MS would adopt non-interoperable digital solutions[87] at varying speed and scope and digital credentials would not necessarily be accepted across MS because of lack of clarity on their legal status.

Technological developments, including AI-enabled solutions, are expected to facilitate certain aspects of cross-border qualification recognition over time, but they are unlikely to address the identified problems on their own. Current evidence suggests that **AI is likely to complement rather than replace existing recognition processes**. The Council of Europe survey of 138 recognition institutions[88] found that AI applications are currently used mainly for fraud detection, document verification and translation, while automated comparability assessments remain limited. The survey also identified barriers to wider deployment, including concerns related to data protection and security, legal certainty, technical expertise, funding, and the availability of high-quality, structured and trusted data. As further addressed in the section 5.1.1. of the Impact Assessment, AI relies on the availability of reliable and trusted information and cannot replace authoritative sources of qualification information. Consequently, official NQF databases and registers will remain essential as quality-assured reference sources for cross-border recognition. The Council of Europe further emphasises that AI should support, rather than replace, human decision-making in recognition procedures. While AI is therefore expected to support certain aspects of the recognition process, it is unlikely to remove the underlying barriers identified in this Impact Assessment.

Similarly, SPI Action 2 impact assessment's own baseline projection anticipates that the gradual uptake of digital credentials and authentication tools may reduce fraud risks in those MS and professions where such tools are fully integrated into administrative workflows, but that these improvements are unlikely to translate into system-wide efficiency gains, given the voluntary and non-binding nature of most relevant EU instruments and the continued reliance on hybrid or paper-based procedures in many jurisdictions. Fraud techniques are, moreover, becoming more sophisticated rather than less, with AI-based falsification identified as a growing complicating factor for CAs' existing manual authenticity checks. Left unaddressed, authenticity risk will therefore continue to generate both a direct administrative cost for CAs and a broader, harder-to-measure cost in the form of continued institutional caution towards qualifications obtained elsewhere in the Union, which in turn constrains the trust on which faster and less document-intensive recognition procedures depend.

Overall, if the current fragmentation of availability of digitalised, secured and interoperable information on qualifications and skills and the underlying imperfect information persists, EU workers are likely to continue experiencing less favourable conditions in accessing the labour market in other MS, and business are going to continue bearing higher costs when recruiting workers across the Single Market. The digital fragmentation in particular is estimated to

[87] The eIDAS Regulation 910/2014 article 45e (and the annex VI) lists the elements Qualified Trust Service Providers can ask public authorities to verify before issuing electronic attestations of attributes. This includes educational and professional qualifications, titles and licences. However, this is not an obligation for MS to issue such documents, and even when individual MS decide to issue qualifications into the EUDI Wallet, other MS would still be unable to read or give legal meaning to such digital qualification attestations.

[88] Situational Analysis Report Highlights Human-Centred AI in Qualification Recognition, https://rm.coe.int/situational-analysis-report-ai-may-2026/48802c0145

become more costly each year, as MS that start to adopt digitalisation of credential systems will have no incentive to adopt a system which allows for full interoperability across the EU. Despite the EUDI Wallet rollout, the **EU interoperability**, and, thus, seamless portability of qualifications and skills across the EU, would not be guaranteed[89].

3. WHY SHOULD THE EU ACT?

3.1. Legal basis

The initiative is based on Articles 45 and 46 TFEU which provide the legal basis for adopting measures to facilitate the free movement of workers. Pursuant to Article 46 TFEU, the European Parliament and the Council are mandated to adopt the necessary measures to bring about the freedom of movement for workers. This includes, inter alia, the systematic removal of administrative and legislative obstacles hindering the search, application for, and take-up of employment across MS (Article 46(b) TFEU), as well as setting up appropriate mechanism to bring offers of employment into touch with applications for employment and facilitating the balance between supply and demand and level of employment in the various regions and industries (Article 46(d) TFEU).

3.2. Subsidiarity: Necessity of EU action

The free movement of people is a fundamental principle of the European Union. To fully benefit from this right, individuals must be able to rely on the qualifications awarded in any MS when they apply for, take up or pursue a professional occupation in another MS. **The digitalisation of qualifications will facilitate their portability across the EU only if it is carried out in a harmonised and interoperable way across MS.** Solutions implemented by a single country will not ensure the benefits for the Single Market but rather deepen its fragmentation. The Commission initiative in this area is timely, because the EUDI Wallet will come into application at the end of 2026: the EUDI framework regulates and harmonises the issuance of attestations via a trust service and via public bodies (which can include issuance of education and training credentials). Moreover, some MS have already introduced or announced to introduce the possibility to request electronic qualifications under their jurisdiction (e.g. FR, FI, IT and ES). To avoid a situation where digitalised qualifications cannot be relied on in other countries due to a lack of interoperability, it is timely for the Union to act by adopting a measure harmonising digital qualifications across the EU. In absence of EU-level legislation, there is a risk that the differences between MS will deepen which could further exacerbate the existing obstacles.

3.3. Subsidiarity: Added value of EU action

Barriers related to qualifications and skills contribute to the existence of obstacles to the free movement of people who wish to work in another MS. They have a negative impact on the functioning of the single market by creating costs for businesses and individuals and indirectly affecting the potential of labour mobility in addressing labour shortages in the EU. Without improved information on qualifications and skills obtained in other MS and tools facilitating effectively the portability of such qualifications and skills, businesses and workers face difficulties when considering opportunities across the EU. Given the cross-border nature of these problems, effective solutions are best pursued at the EU level, rather than through individual efforts by MS.

[89] Ibid.

The added value of ensuring availability of verifiable, secure, digitalised and interoperable information on qualifications and skills obtained in the EU is that EU citizens will be equipped with digital qualifications that are easily accessible to them as holders of qualifications, their potential employers and in case of regulated professions in accordance with Directive 2005/36/EC the recognition authorities in MS. Employers will also have access to tools enabling better understanding and comparison of qualifications issued in different MS. Thanks to the common legal and technical framework underpinning the digitalisation of qualifications, digital qualifications issued in another MS will become more trustworthy and easier to verify. Digital qualifications issued in a standardised manner will be understood everywhere in the EU. This in turn will make job applications less cumbersome and facilitate smoother access to jobs in all MS. While fully respecting MS's responsibility for education and training, the expected added value of this action will be greater portability of qualifications and skills listed by MS in their national qualification frameworks and issued in a harmonised digital format.

Creating momentum in advancing European digital policies and contributing to transforming the EU into a modern, resource-efficient and competitive economy. An EU action will help accelerate the digitalisation of cross-border public services[90], ensure a well-functioning, integrated digital single market, ultimately benefitting European competitiveness. By building on and reinforcing key digital EU initiatives - such as the SDGR, the Once Only Technical System (OOTS), and the EUDI framework – an EU action will maximise the impact of prior EU investments, **being part of a coherent and cohesive EU digital landscape** that serves the interest of the EU and its MS. If the EU does not act now, actions by MS would likely lead to fragmented, uncoordinated, incompatible solutions that fail to integrate with existing EU initiatives. This could result in suboptimal outcomes and be more costly to reverse at a later stage. An initiative in digitalising diplomas could furthermore pave the way for the adoption of similar solutions for other documents relevant for individuals and companies in cross-border situations.

4. OBJECTIVES: WHAT IS TO BE ACHIEVED?

4.1. General objective

The general objective of the initiative is **to facilitate portability of qualifications and skills** between MS in the context of **free movement of workers**. In practice, this means ensuring that labour market actors in the EU have access to simplified, effective and cost-efficient ways to carry, prove, read, understand and compare qualifications and skills obtained in another Member State.

This general objective builds on **existing EU tools and solutions** supporting the use of qualifications and skills across borders and is aligned with several Commission priorities. It responds directly to the agreed roadmap of the European Institutions to achieve "**One Europe, One Market**" to "*strengthen the portability of qualifications and skills across national borders, including through digitalisation and interoperability*". It reinforces the **simplification** agenda of the European Commission by aiming at faster, less burdensome, **digital-by-default** processes for workers moving between MS. It also supports the **EU Competitiveness Compass**, which identifies retaining and mobilising talent across the EU as key to boosting the Union's competitive standing, by ensuring that skills and qualifications acquired in one MS are readily usable in another. It further contributes to the **European Pillar of Social Rights**, notably its principles on fair access to employment and support for

[90] State of the Digital Decade 2025 - Factsheet | Shaping Europe's digital future where the percentage of digital services to individuals and businesses are key indicators.

labour mobility, and the **Single Market Strategy**, which aim to remove remaining barriers to companies and workers operating across the EU. Taken together, these links position the initiative as a concrete step forward towards the completion of the Single Market, reinforcing the free movement of workers.

4.2. Specific Objectives

Specific Objective 1. By the end of the transition period, labour market actors have access to **reliable and comparable information** on skills and qualifications issued in the EU.

Specific Objective 2. By the end of the transition period, labour market actors in the EU can benefit from **interoperable and verifiable digital attestations** of qualifications and skills.

These **Specific Objectives** are further broken down into Operational Objectives (OO) in Section 9, where, considering the preferred Policy Option (PO), the means to **measure** them for a given **timeframe** are defined for monitoring and evaluation purposes.

The Specific Objectives 1 and 2 positively contribute to **multiple SDGs:**[91]

- **SDG 8 (Decent Work and Economic Growth).** Enhances labour mobility, improving job matching and equal opportunities (Targets 8.2, 8.3, 8.5).
- **SDG 10 (Reduced Inequalities)**. Supports cross-border qualifications acceptance and reducing disadvantages faced by EU mobile workers (Targets 10.2, 10.3).
- **SDG 9 (Industry, Innovation and Infrastructure)**. Strengthens digital infrastructure, interoperability and EU innovation (Target 9.1), aiding cross-border talent mobility.

5. WHAT ARE THE AVAILABLE POLICY OPTIONS?

5.1. What is the baseline from which options are assessed?

This section describes the most likely evolution of the current situation in the absence of additional EU-level intervention. The baseline follows a 'no-policy-change' approach, incorporating existing and possible future developments in national, EU-level and global policies, as well as relevant Commission proposals not yet adopted by co-legislators. It builds on the policy and problem contexts described in Sections 1 and 2, and accounts for expected economic and social developments by drawing on available foresights and forecasts.

Availability of reliable and comparable information on qualifications

The EQF Council Recommendation will continue to invite MS to establish National Qualifications Frameworks, to reference them regularly against the EQF in a peer reviewed process, and to maintain registries of national qualifications connected to the Europass platform. However, whether MS do so will remain entirely at their discretion, which limits the value of the public good that aggregated, up-to-date, and comparable official information would otherwise provide. The effectiveness of the existing qualifications comparison tool on Europass will remain limited without continues and up-to date official information supplied by MS.

14 MS have already connected their national qualifications databases/registries with Europass and more MS with an existing database/registry may decide to connect with Europass (e.g. some MS are already testing the system). The update of the information, once the MS have

[91] See point 3 of Annex 3 for a more developed overview of relevant SDGs for the preferred options.

connected their databases/registries, depends on the willingness of MS. The accreditation database for higher education is already connected with Europass.

The increasing role of AI in comparing qualifications

While AI-enabled tools are expected to play an increasing role in supporting the comparison, translation and verification of qualifications, they are unlikely to eliminate the underlying problem drivers identified in this initiative. AI systems can **facilitate access to information** and improve administrative efficiency, but they remain dependent on the availability, quality and interoperability of authoritative qualification data.[92] Where official, structured and up-to-date information is unavailable, incomplete or inconsistent across MS, AI systems are likely to reproduce these shortcomings and may generate inaccurate or biased results.[93]

Moreover, AI systems cannot, on their own, establish the **authenticity** of a qualification or confirm that a qualification is genuinely linked to the individual presenting it.[94] The future deployment of AI solutions in this area will also take place within the framework established by the **AI Act.**[95] In particular, AI systems used in education, vocational training and employment are subject to specific requirements where they qualify as high-risk AI systems, including obligations relating to risk management, data quality and governance, transparency, human oversight, accuracy and record-keeping. Actually, workers whose qualifications are issued in non-standardised formats, or whose credentials are less readily interpretable by automated systems, may consequently be disadvantaged in digital recruitment.[96] The safeguards of the AI Act are expected to support the trustworthy deployment of AI in qualification-related processes, but they do not remove the need for reliable, quality-assured and interoperable qualification information and verifiable digital credentials, which remain the primary objective of this initiative.

Interoperability of digital attestations

While digital tools hold promises for **improving the comparability and verification of qualifications**, uneven and uncoordinated adoption in MS is expected to deepen rather than resolve fragmentation across MS. Most credentials will likely remain paper-based or non-verifiable, and without EU-level coordination on semantic frameworks, data standards, and IT infrastructure, cross-border interoperability will remain limited as none of the MS has an incentive to act as first. Some MS have already established digital diploma registers, digitalising their diploma archives, while some MS may take other approaches: keeping archives decentralised or creating digital archives for recent documents only. Please refer to Annex 8 for a full breakdown of the information by MS. MS will continue implementing the **Single Digital Gateway Regulation (SDGR) and the Once-Only Technical System (OOTS)**. It is expected that they will finalise the provision of fully online procedures for the three studying procedures, which will lead to the connection of evidence providers related to qualifications information between public institutions. The digitalisation of diplomas is not

[92] Symeonidis, V. & Blomqvist, C., 2025, *Policies and tools for comparing and recognising VET qualifications in Europe: an overview*, Cedefop working paper, p. 33

[93] CIMEA, 2023, *Artificial intelligence and recognition of qualifications: opportunities and risks from an ENIC-NARIC perspective*; Symeonidis, V. & Blomqvist, C., 2025, *Policies and tools for comparing and recognising VET qualifications in Europe: an overview*, Cedefop working paper, pp. 33 and 36.

[94] Finocchietti, C. & Lantero, L., 2025, *Diploma mills and fraudulent credentials: The cost of fraud in education*, pp. 127–128

[95] AI Act Single Information Platform | AI Act Service Desk

[96] SPI study, Case study on Shipbuilding; Socoliuc, B. F., Nicolae, F., Pleșea, D. A., & Suciu, D. A., 2024, *EU maritime industry blue-collar recruitment: Sustainable digitalization*; OECD, 2026, *Why data matters for shipbuilding industrial policy*

explicitly covered by the SDGR[97] and will likely be even more limited and fragmented. In addition, the format of the documents is expected to remain diverse as the SDGR provides MS the flexibility to choose their own output format (e.g., PDF, structured data), while still adhering to certain requirements.

Independently of the SPI, MS will progressively make available **standardised EU Digital Identity wallets** to all EU citizens and residents by December 2026[98]. **EUDI Wallets** will provide a safe, reliable, and private means of digital identification for everyone in Europe. Every MS will provide at least one wallet to all its citizens and residents allowing them to prove who they are and securely store, share, and sign important digital documents (such as an ID card or a driving licence). This IT infrastructure is therefore considered to be part of the baseline for this initiative. However, whilst the eIDAS 2.0 impact assessment[99] highlighted educational qualifications as a key sector benefiting from the EUDI Wallet rollout[100], the eIDAS Regulation[101] only covers personal identity, the legal trust framework and the general wallet functionality. It is not guaranteed that all MS will use it to digitalise qualifications and skills. Furthermore, those MS that do choose to use it will have the freedom to choose the scope, the layout, the content and the underlying technical format of their qualifications making interoperability increasingly difficult. The DC4EU large-scale pilots clearly demonstrated the business case for a harmonised approach across the education and training landscape in order to facilitate cross-border use. Unilateral actions - without EU level legal harmonisation of the sectoral use particular sectors to ensure uniformity in formats, standards and rules - could pose challenges regarding the acceptance and verification of these documents in other MS with consequences for individuals and employers.

The EUDI Wallet will be free of charge for citizens to use. Relying parties (the public and private entities that wish to request or verify credentials from a citizen's wallet) will instead be subject to a mandatory registration process. Depending on how MS implement this at national level, this registration may involve moderate administrative costs or fees, though the precise cost for relying parties is still being defined in several MS.

The **Interoperable Europe Act** establishes structured EU cooperation on interoperability, introduces mandatory assessments to evaluate the impact of changes in IT systems, promotes the sharing and reuse of interoperable solutions through the Interoperable Europe Portal, and provide innovation and support measures for policy experimentation. As a horizontal framework, its implementation alone will not resolve the cross-border sector-specific challenges identified in the report.

The **Europass** EDC infrastructure already enables education and training providers to issue digital learning credentials and allows users to store them in their Europass wallet. However, the current uptake is not expected to improve or increase, as those who bear the burden of issuing digital qualifications (education and training providers) are not necessarily the same actors who benefit most from them (those who need to understand and verify the qualifications, such as employers). As with the EUDI Wallet, it is not guaranteed that MS

[97] Digitalised documents under the SDGR studying procedures are the decision on the application for financing or acknowledgement of receipt; the confirmation of the receipt of an application to public tertiary education; and the decision on the request for academic recognition. For these procedures, qualifications may be used as supporting documents.
[98] The impact assessment for the EUDI framework estimates the total costs for public authorities to range between EUR 850 million and 910 million.
[99] https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021SC0124
[100] Educational and professional qualifications are listed in the Annex VI of the Regulation as an obligation for MS to verify the information when requested to do so by Qualified Trust Service Providers.
[101] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32024R1183

which independently choose to digitalise their qualifications will select Europass as their IT infrastructure.

Demographic ageing and labour shortages

Demographic ageing and shrinking working-age populations are increasing the pressure on employers, particularly in shortage sectors, to recruit across borders. Many are already responding by accepting non-national qualifications even if they do not fully understand them and use digital tools to verify them informally. However, these *ad hoc* solutions are inconsistent and unreliable in the absence of common standards. This will leave EU talent underutilised and constrain the Single Market's capacity to match skills to labour demand, even as demographic pressures make such matching increasingly urgent.

5.1.1. Key figures and considerations in the baseline

Different levels of digital readiness for MS

MS are assumed to have different levels of digital readiness in the baseline. This digital readiness is expressed as a probability (from 0 to 1) and relates to issuing digital qualifications as verifiable credentials into a wallet or a fractional percentage readiness for database connection.

On the one hand, there is the **probability of MS adopting the baseline of issuing digital qualifications as verifiable credentials into a wallet**. It is based on the analysis carried by DC4EU as well as additional analysis on MS readiness (see section 2.3 and point 5 in Annex 8 for more details). In particular, the clustering into four groups related both to their EUDI Wallet readiness and readiness to issue digital qualifications, the adoption of other joint IT systems (such as EMREX), actual participation in DC4EU, the existence of diploma registers and the MS topology of issuance contribute to the probability factor.

On the other hand, there is the **database connection readiness of MS**. MS which already have a connected database in the current ELM format receives the highest level of readiness (while not 100% as SPI will also introduce the awarding body and accreditation information, which can be combined with the qualifications information); MS with a database not connected to Europass receives a lower score and MS without any database receive the lowest readiness score.

Table 1 Levels of digital readiness per Member State[102]

Member State	Baseline probability of MS adopting the EUDI Wallet for digital qualifications in their jurisdiction (0-1)	Qualification database connection readiness (0-1)
Austria	0.6	0.8
Belgium	0.55	0.75
Bulgaria	0.3	0.15
Croatia	0.35	0.25
Cyprus	0.35	0.15
Czechia	0.4	0.8
Denmark	0.7	0.8
Estonia	0.7	0.5

[102] All details for the elaboration of this table can be found in Annex 8.

Finland	0.75	0.5
France	0.65	0.8
Germany	0.6	0.8
Greece	0.7	0.6
Hungary	0.4	0.5
Ireland	0.65	0.8
Italy	0.7	0.25
Latvia	0.35	0.8
Lithuania	0.45	0.8
Luxembourg	0.5	0.25
Malta	0.45	0.8
Netherlands	0.85	0.8
Poland	0.5	0.8
Portugal	0.45	0.8
Romania	0.4	0.5
Slovakia	0.4	0.8
Slovenia	0.4	0.8
Spain	0.75	0.5
Sweden	0.8	0.8

Number of verifications of qualifications issued in another Member State

As previously underlined, the individual decision-making processes of employers cannot be observed, nor aggregated. The number of qualifications issued in another Member State that employers verify each year must therefore be estimated.

The annual flow of EU mobile workers is approximately 957,000[103]. It is assumed that companies requiring qualifications when advertising a vacancy and/or as part of the application process will verify at least the authenticity of the qualification of the selected applicant.

An ad-hoc query of the Skills Online Vacancy Analysis Tool for Europe yield that 23% of online vacancies include at least one wording directly related to qualifications. In the SME Pannel 29% of respondents declared that they request qualifications when hiring. Applying these percentages to the annual flow of EU workers yields an estimated range of 220,110 - 277,530 qualifications issued in another MS verified per year.

This estimate can be considered as conservative as it takes as a basis only the flow of mobile workers (hence mobile workers who apply to change jobs in the MS they already reside are not counted) and does not include cross-border workers[104].

Number of comparability statements for qualifications issued in another Member State

The estimate is based on an ENIC-NARIC survey on the number of comparability statements processed by MS. Since survey coverage was incomplete, responses are weighted by each Member State's share of the inflow of other EU citizens (2019–2023), and missing values for non-responding MS are extrapolated using the average of those that did respond. This produces an estimated total of 196,261 comparability statements annually. Since only about half of these concern EU citizens, the figure is halved to roughly 98,000, then rounded down to 90,000, which is used as a deliberately conservative baseline estimate.

[103] Annual report on intra-EU labour mobility - Employment, Social Affairs and Inclusion (2025)
[104] For further justification of these percentages and reference, see Section 2 on problem definition

Number of education and training providers in the EU that issue qualifications relevant for the labour market

Both VET and HE institutions are counted as providers issuing qualifications relevant for the labour market. For VET institutions, two methodological approaches are used to produce the lower and upper bounds of the range: a conservative approach and a comprehensive approach. The conservative approach entirely excludes specialised schools and, for mixed-curriculum institutions offering both vocational and general education, applies a 50% weighting factor to balance the representation of programmes; this yields a baseline of 27,762 VET institutions. The comprehensive approach includes specialised schools and counts mixed-curriculum institutions at full (100%) capacity, yielding 39,328 VET institutions.

For VET, institutions were further categorised into Public and Non-Public, with government-dependent private and private institutions consolidated into the non-public category; no equivalent public/non-public distinction was made within the HE sector. VET data is drawn from Eurydice[105], while HE data is drawn from EQAR's Higher Education Institutions (HEIs) dataset[106], with both datasets relating to 2024. One exception applies to Hungary, where the public/non-public distinction for VET schools could not be applied. Combining VET and HE figures, the final estimated range of education and training providers considered is 32,788 - 44,354. The full matrix of education providers by VET and HE institution, including source data and detailed methodology, is presented in Annex 8(7).

Table 2. VET and HE providers per Member State

MS	Vocation Educational School (VET) Conservative Approach			Vocation Educational School (VET) Comprehensive Approach			Higher Education
	Public	Non-Public	VET_MS	Public	Non-Public	VET_MS	HE_MS
AT	196	137	333	196	137	333	79
DE	1	1	2	1	2	3	7
FR	103	112	215	213	254	467	130
NL	145	330	475	327	745	1072	39
BG	1062	66	1128	1345	93	1438	135
HR	182	22	204	397	43	440	138
CY	50	48	98	54	44	98	50
CZ	491	190	681	970	376	1346	66
DK	374	1	375	374	1	375	45
EE	30	3	33	30	3	33	20
FI	55	91	146	55	96	151	46
FR	3374	598	3972	3833	706	4539	615
DE	4003	1327	5330	4003	1327	5330	507
EL	411	3	414	573	3	576	57
HU	0	0	462	0	0	462	65
IE	248		248	248	0	248	40
IT	2717	818	3535	5435	1637	7072	259
LV	39	8	47	39	8	47	54
LT	47	8	55	47	8	55	43

[105] https://eurydice.eacea.ec.europa.eu/eurypedia/austria/statistics-educational-institutions)
[106] https://www.eqar.eu/qa-results/download-data-sets/

LU	21	5	26	50	5	55	21
MT	2	0	2	10	0	10	16
NL	93	294	387	187	525	712	130
PL	3363	498	3861	3363	498	3861	545
PT	229	45	274	353	346	699	288
RO	925	21	946	926	21	947	104
SK	300	108	408	392	123	515	33
SI	71	3	74	143	6	149	105
ES	2059	1324	3383	4119	2648	6767	1341
SE	415	233	648	922	606	1528	48
Totals	**21006**	**6294**	**27762**	**28605**	**10261**	**39328**	**5026**

To convert institution counts to awarding-body counts, different awarding-governance models across MS are considered, as shown in Annex 4.1, Table 23. Upper secondary schools offering only general programmes are excluded from the institution count, as they already share grade results electronically with the awarding body today[107]. Instead, they are captured via the (mostly centralised) awarding bodies for secondary school qualifications, based on a simplifying assumption of an average of 2 'school certificate' issuers per Member State. This reflects the range of national governance models, from a single centralised issuing authority (e.g. a Ministry of Education) to a split between school-level and state-level issuers (see e.g. Eurydice, National Education Systems, 'Assessment in general upper secondary education,' country reports[108]) and is used here as a working estimate rather than an empirically derived EU-wide figure.

Number of non-NQF micro-credentials providers

The number of non-NQF micro-credential providers cannot be directly quantified, as no official EU-level repository of private and non-formal issuers for micro-credentials currently exists. Cedefop's mapping study[109] confirms this gap, noting that EU-level data are lacking due to the diversity of providers and national systems. In the absence of such data, the approach taken here relies on modelling, using available proxy indicators to assess the size of the provider landscape. As detailed in Annex 4.1.1, this draws on membership data from the Lifelong Learning Platform (LLLP)[110], whose networks represent over 60,000 organisations across formal, non-formal and informal learning, adjusted to exclude formal education and training institutions already captured as qualification issuers.

Given the absence of a representative dataset, the resulting estimate of 45,000 non-formal and informal learning organisations should be treated as indicative rather than precise, while the input parameters used to derive it carry a significant degree of uncertainty. This uncertainty stems both from the proxy nature of the underlying data (LLLP membership figures were not designed to measure micro-credential provision specifically) and from the assumptions applied to disaggregate that membership by provider type. Eurostat data showing that 67.4%

[107] Eurypedia
[108] Ibid.
[109] Cedefop (2022). *Microcredentials for labour market education and training: first look at mapping microcredentials in European labour-market-related education, training and learning: take-up, characteristics and functions*. Luxembourg: Publications Office. Cedefop research paper, No 87. http://data.europa.eu/doi/10.2801/351271
[110] https://www.lllplatform.eu/aboutus

of EU enterprises with 10 or more employees were "training enterprises" in 2020[111] further suggest that the true pool of potential providers may extend considerably beyond this estimate.

5.2. Description of the Policy Options

Three policy options are considered for detailed assessment. They were identified based on the analysis of technical feasibility, Member State readiness and the state of development of key EU level tools such as the EQF, Europass and EUDI Wallets.

Some elements to facilitate the understanding of the options

- Options refer to **two categories of documents**: i) '**qualifications'** is used for any document in an NQF as well as formal school, VET and higher education diplomas predating the establishment of NQFs and ii) **'other skills document'** refers to documents not included in the NQF which also signal a person's skills, such as micro-credentials from non-formal training courses[112], or Diploma Supplements. Any of the two categories of documents can have **EQF levels 2-8 (i.e.** all formal education certificates and diplomas from lower secondary VET education to PhD[113]).
- **Two tools** are considered to digitalise qualifications: i) the **EUDI Wallet:** Its introduction will significantly improve the way electronic documents are exchanged in the EU. The DC4EU project showed that it is a viable option for the digitalisation of qualifications; and ii) **the Europass Wallet**: The **European Digital credentials for Learning (EDC)** is an infrastructure that is available to issue digital credentials in the field of learning. Its use by issuers is currently voluntary and the tool is mostly used today to issue non-formal micro-credentials. For citizens, both EUDI Wallet and the Europass Wallet are voluntary **and free of charge**. and the use of the applications is entirely up to the individual's decision. The **European Learning Model**, which has been assessed according to the Common Assessment Methodology for Standards and Specifications (CAMSS)[114] will be the semantic foundation for the digitalisation of qualifications and the comparison tool under all options.

  Any delays by MS in the implementation and rollout of the EUDI Wallet (by end of 2026) would not directly affect the timeline and success of the Skills Portability Initiative. Even if the Wallet constitutes part of the baseline infrastructure on which this initiative relies, the Skills Portability Initiative has a transition period that would offset any implementation delays. Nonetheless, the calculations underpinning this impact assessment have adopted a deliberately conservative approach to the projected uptake of the EUDI Wallet, in line with the assumptions used in the impact assessment for ESSPASS[115]. This conservative approach ensures that the estimated costs and benefits of the Skills Portability Initiative are not overly dependent on an optimistic rollout scenario and helps mitigate the risk that gaps or delays in MS' implementation of the Wallet could undermine the validity of the assessment's conclusions. For the Europass Wallet, this conservatism is

[111] Share of training enterprises decreases in 2020 - News articles - Eurostat
[112] Micro-credentials (records of learning outcomes from a small volume of learning) and the outputs of skills validation procedures can also be part of an NQF (whether as a qualification or as a micro-credential).
[113] EQF levels between 2 and 8 cover all qualifications that are labour market relevant. Level 1 is considered out of scope for labour mobility. Only 6 MS include any VET qualifications at EQF level 1 (LV, LT (but none awarded), LU, MT, NL, AT, RO), 14 MS have EQF level 1 for elementary/primary school (BE, BG, ES, CZ, EE, EL, HR, HU, IE, KY, SI, SK, SE) and 3 MS do not include any qualifications at EQF level 1 (DK, FR, FI).
[114] CAMSS Assessment of ELM - EIF Scenario | Interoperable Europe Portal
[115] European Commission, *Impact Assessment accompanying the proposal for a European Social Security Pass (ESSPASS)*, Commission Staff Working Document, not yet published.

further reinforced by an additional factor specific to its scope: unlike the EUDI Wallet, which will be used to hold a broad range of credentials such as national ID cards and driving licences, the Europass Wallet is dedicated specifically to learning-related credentials, meaning its uptake trajectory is likely to be more gradual and cannot rely on the pull of other, more frequently encountered use cases. In addition, for both wallets, the calculations only count Year 1 as starting after the three-year transition period foreseen for this initiative, which further limits the projected uptake figures used across the assessment.

Table 3 Cumulative wallets uptake (conservative assumption)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
EUDI Wallet	0%	0%	20%	40%	50%	60%	70%	75%	75%	75%
Europass Wallet	0%	0%	10%	20%	25%	30%	35%	38%	38%	38%

- "**Automatic" issuance** of digital attestations means that the proof of qualification would be issued into the user Wallet instantaneously, without manual processing. The **"on demand" issuance** of older qualifications means that an exchange between various actors is needed to issue a qualification, using the **SDGR mechanism** or a **manual verification** process.

- Roles of different bodies in in issuing of digital attestations:
  - the **education and training providers**, they provide the training and gather the results of their learners and, share the data with awarding bodies ahead of the issuance of a qualification (unless they carry both roles),
  - the **awarding bodies**, the formal bodies/authorities that award the qualification to a learner. They, either issue the qualifications directly or use an issuer (in the same way they may rely on the national printing house) for the actual creation of the paper proof. Some MS have also developed diploma registers to facilitate this process [116].
  - **the issuer of the digital document**, which is in charge of creating the digital document.
  - Under all options, the **organisation of the issuance process would depend on the MS organisation**, for example regional structures or chambers of commerce and industry could continue to play a role similar to the role they play today.

- In all options newly issued qualifications would be **digital by default**, consistent with the vision established in the Commission's 2030 Digital Compass Communication. This is also **coherent with SPI Action 2** which relies (1) on the swift issuance of digital qualifications and (2) on a high level of reliability regarding the authenticity and the identity of the awarding body and of the qualification holders. Each of the options considered has considered this dual requirement, ensuring that speed of issuance is not achieved at the expense of verifiability, or vice versa.

Design of the policy options

The policy options were formulated in a manner to allow **comparison between key parameters** for the approach to digital attestations of qualifications:

[116] In several MS, a national database of learning records/students' degrees has also been set up (e.g. NL with the DUO platform, FR with Cyclades, FI with KOSKI-palvelu)

- **<u>the choice of the specific tool</u>**: two options (PO1 and PO2) rely on the **EUDI Wallet**. On the other hand, PO3 relies on the **Europass wallet.**

- **<u>the scope of digitalisation</u>**: all options include **documents most relevant for the labour market and quality assured through the NQF** (EQF levels 2-8, including some more formalised micro-credentials which have fulfilled NQF quality assurance criteria set by the MS). Two options (PO1 and PO3) are even broader and include also **other skills documents**, notably micro-credentials outside the NQF – these are of growing importance in the labour market but are less formalised and are not quality assured in the same way as NQF documents.[117]

- **<u>The time window of information covered by digitalisation</u>**: Two options (PO1 and PO3) consider the digitalisation of all the past qualifications and skills documents "on demand" and one option (PO2) in addition extends the automatic issuance as far as possible to the **previous 10 years on demand.**[118] Digitalising past documents is important to meet objectives, as it benefits larger share of the existing workforce. In all options **past qualifications are only issued to support workers access employment in another MS**. New qualifications do not have the same limitation because for new graduates it is more difficult to establish what the primary use of the qualification would be (national or EU labour market or further education).

The POs are built in a complementary manner and are mutually exclusive. All retained options are **legislative**, as the achievement of a standardised approach to digitalisation requires making some elements obligatory for MS and issuers.

Table 4: Overview of Policy Options

	Tool	**Scope**	**Applicable Time Window**
PO1	EUDI Wallet	Qualifications (EQF 2-8) and other skills documents	New automatic + older on demand (for cross border labour mobility)
PO2	EUDI Wallet	Qualifications (EQF 2-8)	New automatic +10 years automatic (for cross border labour mobility) + older on demand (for cross border labour mobility)
PO3	Europass Wallet	Qualifications (EQF 2-8) and other skills documents	New automatic + older on demand (for cross border labour mobility)
Common elements of all options	• Ensuring **legal value** of digital qualification attestations • Mandatory **comprehensive NQF**, obligation for NQFs to be clearly and regularly **referenced to the EQF** and for NQF qualifications database to be **linked to Europass**. • **Trust framework** (database of qualifications standards, awarding		

[117] **DC4EU** considered such a large scope in their pilot, however they proposed a different trust framework for the different types of documents, where non-NQF micro-credentials were issued with the lowest level of assurance in the eIDAS ecosystem and a basic trust framework.

[118] This includes qualifications issued since 2017, since the entry into force of the revised EQF Recommendation.

	bodies and accreditation) • Provision of **verifier/viewer application** • Reinforced **qualifications comparison tool** in Europass • Encouragement to include **micro-credentials** in NQF and use the common approach to micro-credentials as established in the relevant Council Recommendation. • **Transition period**
Supporting measures (non-legislative)	• Awareness campaigns • Encouragement to use EU funding • Continued support to existing EU level tools

All the options share some **common elements** and **supporting measures (proc)** are envisaged to accompany all three options. In particular, awareness of the opportunities related to the availability of digitalised information on qualifications could be raised through promotion campaigns at EU, national and regional levels. In addition, MS could be encouraged to make use of available funding at EU and national levels, e.g. to fund their digital transformation. Moreover, the Commission would continue the support to the implementation of existing tools and initiatives (EQF, Europass, the Council Recommendations on validation of non-formal and informal learning, and on the EU approach to micro-credentials and the Europass Decision). These measures are not assessed for the costs and benefits as they are either ongoing efforts or voluntary initiatives and choices of the MS.

Detailed description of the options

PO1

This option uses **EUDI Wallet** as the tool to issue digital attestations of qualifications (see visualisation in Annex 11).

It has a broad scope: qualifications (included in an NQF and covering **EQF levels 2-8**) and **other skills documents.**

All **new qualifications** would need to be issued "automatically" – i.e. without delay, and without the need for manual processing. Issuance would follow a different model between public issuers and private issuers, having to rely on a qualified trust service provider[119]. They would be issued according to the trust framework of linking qualification, accreditation and awarding body information into the credentials.

Regarding **qualifications awarded before SPI and no later than 45 years[120] prior**, they would be issued digitally on request of the citizen **for cross border purposes and within a reasonable time** allowing MS time to gather the data and check the information (no later than two weeks when those qualifications are requested as part of a professional recognition procedure as described under Directive 2005/36/EC). As part of the eIDAS Regulation, MS shall already ensure that measures are taken to allow qualified trust service providers of electronic attestations of attributes to verify by electronic means, at the request of the user, the

[119] It is unlikely that a private education and training providers become a qualified trust service provider considering the very high auditing costs to become (and later remain) a qualified trust service provider. In addition, the legal responsibility this function entails are very high.

[120] 45 years is the assumed span of a person's professional career. Qualifications issued more than 45 years before the entry into force are considered of limited importance in the labour market and are therefore excluded from all the options.

authenticity of the educational qualifications, titles and licences. In order to issue digitally qualifications that have already been awarded to workers and jobseekers in a paper and/or PDF format, MS would be able to leverage the **Single Digital Gateway and the OOTS** common services to check information before **issuing a digital qualification in the EUDI Wallet[121] and rely on trusted information**. The content of the qualifications would differ between the new and existing qualifications, so that MS can provide the necessary information, with many fields being optional (see Annex 11.5).

For **other skills documents outside NQFs** (e.g. micro-credentials, Europass Supplements), new ones would be issued digitally to the EUDI Wallet by default, while existing ones would be digitalised only upon request.

Based on consultations and the DC4EU project a common framework of **obligatory and optional data fields** is identified for the new qualifications and skills documents (see Annex 11.4), to facilitate common understanding and comparability of the available information. The content of the older qualifications would be more limited, so that MS can provide the necessary information, with many fields being optional (see Annex 11.5).

PO2

This option uses **EUDI Wallet** as the tool to issue digital attestations of qualifications.

It has a narrower scope: only qualifications (included in an NQF and covering **EQF levels 2-8**). This option excludes other skills documents for reasons of practical implementation (the landscape of micro-credentials is very diverse, with a high number of issuers and less stability than formal qualifications), lower level of quality assurance and relatively lower value in the labour markets as they signal a narrower scope of skills.

The issuance of **new qualifications** into the EUDI Wallet would be the same as in PO1. The same mechanism as what is foreseen for **older qualifications** in PO1 is used here for qualifications issued more than 10 years before the SPI and up to 45 years before.

As PO2 focusses on labour market relevant qualifications, this PO also considers however a more generalised **digitalisation of the qualifications issued in the past 10 years**[122]. The more general digitalisation effort would ensure that more workers would be covered by this new opportunity, and more employers could benefit from time saving. 10 years is considered the maximum time allowing for the proposed reliance on consistent quality assurance through NQFs, since 2017 was the year when the new EQF Council Recommendation was adopted.

The **qualifications from the previous 10 years** would need to be issued **automatically** to the extent possible and in any case within a reasonable timeframe into the **EUDI Wallet[123].** To ensure proportionality, this service would be provided only when requested by workers for the purpose of labour mobility, provided that they have an EUDI Wallet**.** The main efforts would be for MS to connect the databases containing qualifications, awarding bodies and accreditation information from the previous 10 years (thus providing the **trust framework for the EUDI Wallet**) so that the information for the automatic issuance would be available upfront. In many MS, this information would be available according to the state of play on NQF implementation presented with the proposal for the revision of EQF Recommendation in

[121] This would leverage the OOTS-EUDI Wallet synergies: Two systems one vision: OOTS-EUDI Wallet synergies final report published - OOTSHUB -

[122] 10 years is considered the maximum time allowing for the proposed reliance on consistent quality assurance through NQFs, since 2017 was the year when the new EQF Council Recommendation was adopted.

[123] E.g., in case a MS does not have a digitalised diploma register, they may need to have a manual process to finalise the digitalisation of the qualification

June 2016[124] while in certain cases, MS would need to either to still digitalise this information or collect the information.[125] Several MS record the information of individual diplomas[126] and a few countries[127] already have such a register[128]. This information was taken into account when considering feasibility of this approach. The **verification of these qualifications** would then align with the trust framework of the new qualifications and would present the **same level of trust and authenticity**.

To the extent possible, MS would have to have the same **level of content description of qualifications** of the past 10 years as for new qualifications and should use the same trust framework[129] - see Annex 11[130] . However, implementation of this option would include some mitigating measures ((1) introducing **more flexibility in the data fields**, for example using the same data fields as older qualifications regarding the description of the qualification **while maintaining the same trust framework**; (2) not requiring the automatic issuance of the digital qualification and **aligning with the time needed for MS to access information with older qualifications**).

The extension of the automatic issuance to the last 10 years is an important element of this option and to ensure that its feasibility is fully considered, a **sensitivity analysis** was conducted to compare the costs and employer savings compared to no such special treatment for the backlog (see Annex 4).

PO3

This option uses the alternative tool **(Europass wallet)** to issue digital attestations of qualifications.

It has the same **broad scope as PO1: qualifications** (included in an NQF and covering **EQF levels 2-8**) and **other skills documents.**

The digitalisation would take place by issuing new digital documents by default in the **Europass wallet**, thus leveraging the existing Europass framework that would be further updated for supporting mass issuance of documents across the whole EU. Issuers would be able to make use of the **European Digital Credentials for Learning (EDC) infrastructure** to issue qualifications, where the key requirement is to have an electronic seal that is eIDAS compliant. The EDC infrastructure would rely on the same trust framework as PO1 and PO2,

[124] The proposal for a revised EQF Recommendation stated that "By early 2016, 22 MS and five non-MS had finalised the process of referencing their national qualifications levels to the EQF. Three MS had presented a first referencing report, but their reports were still in the process of being endorsed by the EQF Advisory Group." EUR-Lex - 52016DC0383 - EN - EUR-Lex.

[125] Eighteen MS have reached the operational stage: their NQFs provide a map of NQF qualifications and a reference point for development and review of standards and curricula; NQF levels are indicated on certificates and diplomas, qualifications registers/databases are functional, and quality assurance mechanisms are in place. Other nine MS are in the activation phase meaning that the implementation structures and the criteria and procedures for allocation of qualifications to levels have been set, and the main instruments are being put in place (e.g. databases, quality assurance arrangements); awareness of end-users is gradually growing.

[126] In several MS, a national database of learning records/students' degrees has also been set up (e.g. NL with the DUO platform, FR with Cyclades, FI with KOSKI-palvelu)

[127] CZ for example shared that "all types of education regulated by law (School Act, Tertiary Education and National Register of Qualifications) provide archive in cooperation of educational institutions and registers of the relevant Ministries".

[128] Minutes of the meeting can be found at: https://ec.europa.eu/transparency/expert-groups-register/screen/meetings/consult?lang=en&meetingId=66003&fromExpertGroups=3613

[129] As the trust framework relies on having databases of qualifications, accreditation and awarding bodies, some MS may not be in a position to have the same trust framework as they will set up for new qualifications. Similarly, the same level of information on the older qualifications might be difficult to achieve in some cases.

[130] Many customisable data fields related to individual learners, including grades, are considered as optional.

which is hosted in Europass. Individuals would store their digital credentials in the Europass wallet.

New qualifications would be issued automatically. **Past qualifications** awarded before SPI **and no later than 45 years before** would be issued into the Europass Wallet **upon demand and for the purpose of employment in another MS**. These qualifications would have to be issued within a reasonable time, and no later than two weeks when those qualifications are requested as part of a professional recognition procedure as described under Directive 2005/36/EC, thus allowing MS time to gather the data and check the information (data to be included is described in Annex 11.5). For **other skills documents outside NQFs** (e.g. micro-credentials, Europass Supplements), new ones would be issued digitally to the Europass wallet by default, while existing ones would be digitalised upon request[131].

Contrary to the EUDI Wallet, the **Europass wallet does not provide any link to the identity of the account holder** and does not provide the same level of authenticity as the EUDI Wallet since the eIDAS Regulation brings a complete trust framework for ensuring trustworthiness of (qualified) issuers, identity of wallet holders and the registration of all parties who are interacting with the ecosystem and sets standard protocols and interfaces. On the other hand, the Europass platform is **the EU platform for career management** and in that option, the platform would evolve for improving the authentication of digital credentials issuers[132].

Regarding the **obligatory and optional data fields** the requirements would be the same as in the other options, with a more comprehensive set for the new documents (see Annex 11.4), and a more limited set for the older ones (see Annex 11.5).

Common elements

Under all options, MS would need to give **legal value to the qualifications and other skills documents issued digitally** and **recognise the legal value of digital qualifications and skills documents issued in other MS**. This ensures legal interoperability of the digital attestations.

All options include the **same approach to NQF and EQF**: it would become mandatory for MS to have a comprehensive NQF, and for their NQFs to be **clearly and regularly referenced to the EQF**. **The NQF and EQF are important to ensure that the digitalised qualifications are quality assured and comparable**. The EQF peer review process ensures a level of mutual understanding of qualifications levels from another MS, of qualifications types in different MS and brings trust of the qualifications that become included in the framework. The EQF brought a **learning-outcome approach** to the description of qualifications which brings the necessary information to employers in terms of knowledge, skills and responsibility and autonomy of the qualifications' holders. Such an approach can **help employers better understand what an applicant can do** based on these comparable descriptions and can have trust that the qualification had a minimum level of quality to become part of the NQFs, which can strengthen the signalling aspect of the qualifications. MS would be obliged to include the **EQF level in all new qualifications** that are issued in their territory, as it would be a mandatory field in the digital qualification. In addition, MS would

[131] Like PO1, skills documents outside of NQFs issued in the past, the digitalisation would happen only upon request.

[132] Europass is only considered for the most ambitious scope and depth of digitalisation: since Europass is already voluntarily and successfully used to digitalise micro-credentials by non-formal providers, this ambitious scope would be feasible. Because the Europass wallet has a softer (and thus less demanding to set up) trust framework than EUDI Wallet, it would provide more flexibility to non-formal providers while giving less assurance about the formal NQF awarding bodies than EUDI Wallet.

be encouraged to use **skills and knowledge concepts** from the ESCO classification, as an optional field to complement the mandatory description of the learning outcomes[133].

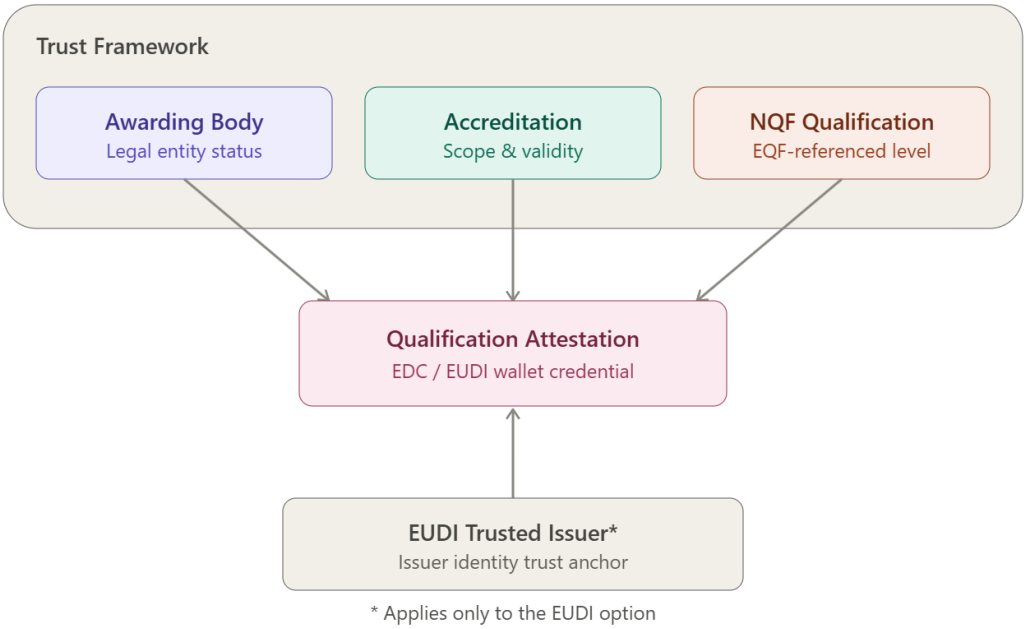


Figure 2 The reinforced trust framework required for qualification attestations

While the EUDI Wallet framework provides legal proof of origin in terms of the issuance of digital attestations, it does not, by default, provide proof of authorisation to award or issue. In order to ensure that digital qualification attestations are only awarded and issued by authorised bodies it is necessary to supplement the EUDI Wallet Trusted Lists with an additional trust framework, specifically for qualifications. This reinforced trust framework encompasses databases of qualifications, awarding bodies and accreditations, which are connected to Europass [134]. At the time of attestation issuance, these three data elements will be triangulated, combined with the issuer information and cryptographically locked into the digital qualification attestation as referenceable information. This information can be subsequently verified independently by employers, using the verification software. As part of the EQF Recommendation and the Europass Decision, MS are already invited to provide comprehensive and up-to-date information on qualifications. Transforming this invitation into an obligation under all the options would be needed to have a robust trust framework for the digital qualifications and for the access to publicly and reliable information on qualifications standards. In all POs, MS also need to provide information on awarding bodies and accreditation in order to complete the trust framework described above. The information on

[133] In the survey of issuers of qualifications and in the EQF AG surveys, the majority of respondents shared that the content of the future digital qualification attestation should align with Annex VI of the EQF Recommendation and/or the Annex I of the Recommendation on Micro-Credentials, which are quite similar in content. Regarding the survey of issuers, out of 574 total respondents, 34.49% (n=198) selected Annex I, 25.26% (n=145) selected Annex VI which account for the majority of respondents as 33.10% (n=190) responded "Don't know/Not applicable". As for the EQF AG survey, out of 15 total respondents, 46.67% (n=7) selected Annex I and 53.33% (n=8) selected Annex VI (more than one option could be selected).

[134] The use of this trust frameworks already happens with Europass (in the EDC infrastructure), and the same trust framework was explored during an internal DG EMPL-CNECT pilot regarding the EUDI Wallet options. The EDC infrastructure can already reference accreditation information hosted in Europass. DC4EU piloted two versions of the trust framework, including one on the European Blockchain Service Infrastructure (EBSI) blockchain, which was not retained as the blockchain technology does not bring added value compared to the eIDAS trusted list.

awarding bodies is available in some qualifications databases already (when a qualification can only be awarded by a single awarding body). Accreditation is available for higher education thanks to the connection with the European Quality Assurance Register[135] and during a consultation of EQF AG members in June 2025, MS clarified that inclusion into an NQF is considered a form of accreditation and that accreditation can take many shapes but could be referenced in future digital credentials.

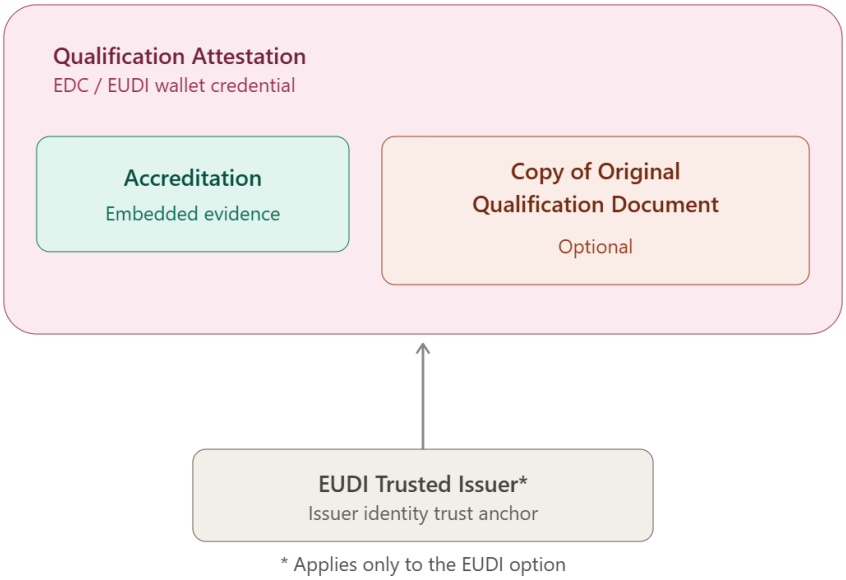


Figure 3 Approach for historical qualifications that fall outside the trust framework

For historical qualifications, such a comprehensive trust framework will not be available, and in these cases the issuer will need to rely on an alternative method of instilling trust in the attestation in order to complement proof of origin provided by the EUDI Wallet Trusted Lists. Here, the issuer will be required to embed evidence of accreditation and optionally embed a copy of the original qualification document into the digitally signed attestation. Once signed, the embedded evidence is cryptographically locked into the attestation and will be tamper-evident at the time of verification by employers.

For the information in the Wallets to be easily readable and verifiable, employers need a specific **viewer/verifier application, and the provision of such an application is foreseen under all the options.** In case of the EUDI Wallet POs a generic verifier exists (and can be used for the development of a reference software) but it would need to be adapted to the needs of a specific sector in terms of rendering the information in a useful way for employers and of providing verification of the sectoral trust framework of the credentials. In case of the Europass Wallet, EDC also includes a **viewer/verifier** that allows employers to view credentials and know instantly if the credential has been tampered with.

To support the two specific objectives, under all options the Commission would also provide on the Europass platform a **reinforced qualifications comparison tool**, which would bring together the existing comparison of qualifications framework and comparison of single qualifications tools together as well as a tool to find your EQF level based on your qualification title for an **improved user experience**. The outcome of the comparison could be exportable so that a jobseeker can attach it to their applications, for information purpose only. The comparison of qualifications would be instrumental to ensure that **employers can access**

[135] European Digital Credentials for Learning - EQAR

comprehensive information on the content of qualifications beyond the information presented in a diploma. The tool would allow users to use a search, for example to find easily the national qualification(s) that are similar to another qualification or even class of qualifications from a different MS.

In all options MS would remain free regarding the qualifications that they include in their NQFs, and they would keep the possibility to include **micro-credentials** or not to their NQFs. However, **micro-credentials included in NQFs** would need to follow the Council Recommendation on the EU approach on micro-credentials to the extent possible. [136]

The implementation of all the options would require some **transition periods** to implement. The transition period would give time for the MS and the issuers to prepare the necessary infrastructure. In addition, implementing acts would need to be prepared during that time to clarify technical implementation details (e.g. related to formats, semantic model), the eIDAS rulebook would need to be finalised (based on a current DG CNECT-DG EMPL internal pilot) and adopted for **PO1 and PO2** or the Europass issuer updated in the case of **PO3**. The Commission would also organise a pilot during this preparation phase to ensure all standards and rulebooks are aligned with the issuers and verifiers' needs and update specifications if needed. This transition period is estimated to be **three years** in after the adoption of the initial legislative act.

Stakeholder views:

The options were developed taking into account views of the stakeholders:

Employers saw strong potential in digital solutions, including digital credentials and the **EUDI Wallet**, to improve access to portable and trusted information for mobility and matching purposes, provided that common standards and broad implementation are ensured. At the same time, they stressed that transparency tools and digital documentation do not in themselves amount to recognition, since employers need information that is not only formally comparable but also meaningful in practice.

Trade unions likewise supported **digital tools as enablers of transparency**, while insisting that they must remain voluntary, accessible (without excluding older workers), multilingual and complemented by non-digital channels and appropriate safeguards. Taken together, stakeholder feedback points to broad support for options that use digitalisation to strengthen transparency and interoperability of qualifications information, while ensuring usability, trust and fair access in practice.

The focus group with youth stakeholders strongly supported digitalisation while underlining that there would be "a need for a regulatory framework to ensure their acceptance".

Differences in support for the POs

While views differed on the need for further EU legislation, the consultation pointed to broad support for **options that improve the availability and interoperability of qualifications information**, particularly where these help make skills more visible, portable and verifiable.

Digitalisation through verifiable digital credentials through the EUDI Wallet was strongly supported by many stakeholders consulted (PO1-2). Little support was expressed for a targeted approach, suggesting that overall, stakeholders favour a general implementation of

[136] This would continue the work that the EQF AG started with the peer-learning activity on the "inclusion of qualifications from outside formal education and training in NQFs referenced to the EQF" that took place in April 2025 (see EQF AG note 66-6).

digital credentials. Similarly, a much smaller number of stakeholders supported the use of Europass for storing digital credentials (PO3) and envisaged its integration with the EUDI Wallet. Stakeholders consulted generally supported the importance of ensuring that the NQF/EQF are clearly and regularly referenced, noting that in several EU MS this is already the case[137].

5.3. Options discarded at an early stage

A number of policy measures considered at the preparatory stages of this initiative or put forward in the consultation process have been discarded without a detailed assessment of their impacts, either because it was not possible to establish sufficient evidence to confirm the issue that those measures would have aimed to address, or because the measures were unsuitable to achieve the policy objectives, clearly disproportionate, or incoherent with the existing legal framework. For more detail, see Annex 9.

- Setting up a European wide system of quality assurance of qualifications (discarded for reasons of proportionality and lack of competence at EU level on education and training)
- Harmonisation of the content and of the organisation of MS' education and training systems (lack of competence at EU level)
- Forbidding the issuance of paper credentials (discarded due to proportionality, legal feasibility and inclusivity reasons).
- Limiting the digitalisation of qualifications to qualifications leading to regulated professions (discarded due to the difficulty of implementation and lack of harmonisation at EU level)

5.4. Intervention logic

The intervention logic of the initiative is based on the premise that companies face uncertainty about the expected productivity of job applicants. Qualifications serve as a signal, reducing the imperfection of information of employers. However, when qualifications have been obtained in another Member State, the value of this signal is weakened because employers (and other labour market actors) may understand less the level, content of the qualifications, and may have doubts about its authenticity. In a context of imperfect information in cross-border hiring, this weakened signal makes it more difficult for EU mobile and cross-border workers to have their skills and qualifications understood, trusted and effectively used in another Member State.

The initiative addresses **two interrelated underlying causes of information asymmetry**. First, it aims to improve the availability and accessibility of reliable and comparable information on the content, level and learning outcomes associated with skills and qualifications obtained in another Member State. This is intended to make skills and qualifications more understandable and comparable for employers and other relevant labour market actors, thereby strengthening their signalling value across borders. Second, it aims to facilitate the efficient proof and verification of the authenticity of qualifications and skills credentials through interoperable and verifiable digital attestations. This should reduce uncertainty and verification costs, while increasing trust in credentials presented across borders. By addressing these two dimensions of imperfect information in parallel, the initiative is expected to improve the portability of qualifications and skills and, ultimately, facilitate the matching of workers with employment opportunities across MS.

[137] Interviews: Recognition authority (AT, SK) Validation authority (BG) Ministry / Digitalisation body (BG) Accreditation authority (CZ) Multiple (HR, HR, LV) Employers' organisation (PL).

The intervention logic is structured around the two specific objectives. SO1 addresses the information asymmetry concerning the **content and level** of skills and qualifications by ensuring that labour market actors have access to **reliable and comparable information**. SO2 addresses the information asymmetry concerning the **authenticity and technical verifiability** of skills and qualifications by enabling **interoperable and verifiable digital attestations**. Together, these objectives are expected to strengthen the signalling value of skills and qualifications across borders, reduce the uncertainty and transaction costs faced by employers and other labour market actors, and make it easier for workers to carry, prove and use their skills and qualifications when moving between MS.

The identified POs respond to those objectives and each of them, when implemented, would cover all the elements of the identified problem:

- Information on the **level and content** of qualifications and skills will be provided in a structured and systematic way in the workers' digital qualification attestation, and additional information on how the content compares to familiar, national qualifications will be made available through the Europass comparison tool
- **Reliability** of the information will be ensured through the reliance on MS NQFs, which also give assurance of quality of qualifications concerned
- **Comparability** of the information will be ensured through the reliance on the EQF, which already provides a translation between qualifications from various MS and will be additionally reinforced by making some of its elements mandatory; as well as standardisation of information provided through the digital attestations and in the Europass comparison tool
- **Authenticity** of the information will be, in case of new qualifications, instantly verifiable, and in case of older qualifications verification it will be facilitated
- **Interoperability** will be ensured through setting common legal, technical and semantic standards for the digital attestations.

6. WHAT ARE THE IMPACTS OF THE POLICY OPTIONS?

The expected economic and social impacts of the POs are assessed below. While economic impacts are mainly monetised, social impacts on employment and labour mobility, working conditions, social inclusion and fundamental rights are assessed qualitatively. Environmental impacts are also considered. The dynamic baseline scenario is described in chapter 5.1 and considered in this chapter as a reference point for the IA of each option.

6.1. Economic impacts

6.1.1. Direct costs

In essence, Action 1 of the Skills Portability Initiative requires an initial investment from **administrations** (both the European Commission and the MS) to set up everything needed to issue interoperable digital attestations for qualifications, to provide verifier software for these digital attestations, and to make official information on qualifications publicly available for the benefit of labour market actors who use these qualifications across borders. This investment will also carry associated maintenance costs over time. As discussed in the section below, this investment from administrations will have positive effects in any context where qualifications may have signalling value.

Other than this, PO1 and 3, which cover all skills documents beyond NQF qualifications, will also generate costs for **providers of non-NQF micro-credentials**. As defined in the Council

Recommendation on an EU approach to micro-credentials[138], these providers can include employers, trade unions, civil society organizations, public employment services, and any other actor that delivers a short learning experience and issues a micro-credential certifying its learning outcomes. Under PO 1 and 3, these issuers of non-NQF micro-credentials will also be required to issue digital attestations for their skills documents.

Therefore, except if they take on a role as micro-credentials providers, **neither workers nor employers bear any direct costs (one-off or recurrent)** related to the three policy options presented, nor do they hold any implementation obligations. The success of the initiative is, of course, linked to the uptake of the tools, both the use of digital attestations for qualifications and the comparison tool, since these will only be used if they are considered to have value for workers and employers. As discussed in section 5.2., the cost assessments have applied conservative assumptions for the uptake of the wallet, in line with the Impact Assessment for ESSPASS.

However, most respondents, both individuals and businesses, to the public consultation and the SME panel indicated that they were likely or very likely to use digital qualifications. In the public consultation, 91.9% of EU citizens (272 out of 296 respondents) and 91.3% of businesses (21 out of 23 respondents) indicated they were likely or very likely to do so. In the SME panel, this figure was somewhat lower, with 71.7% of SMEs (114 out of 159 respondents) expressing the same likelihood.

6.1.1.1 European Commission

Costs of the comparison tool in Europass

The European Commission will bear the costs of making a more user-friendly NQF and qualifications comparison tool available to the wider public through the Europass website. However, this comparison tool[139] already exists under the baseline scenario, and its revision, maintenance and further improvement are covered by the contract managing the suite of Europass tools (including, for example, the CV builder[140]). Considering experts criteria and the overall volume of this ongoing contract, a **one-off cost of €300,000** and recurring maintenance costs of €15,000 for improving the comparison tool to address the objectives of the SPI can be attributed to the initiative, which is **common to all three policy options.**

Cost of the back-office tool connecting national databases

The European Commission will need to provide and maintain a back-office tool connecting all national databases. This tool is the backbone of the trust framework for the EUDI Wallet and the Europass Wallet. Besides, it also feeds reliable information into the comparison tool in Europass provided by the European Commission.

This back-office tool is built and maintained as an EU-side shared database, which covers the trust registry and catalogue infrastructure underpinning the system. Building this database means according to the experts' criteria a one-off cost of €2,500,000, covering the trust registry, catalogue population as set out in Implementing Regulation (EU) 2025/1569, and the reference implementation. This figure is the same regardless of which issuance option is chosen, since the database constitutes the shared trust-framework infrastructure rather than something built separately for each option. Under the baseline scenario, by contrast, the one-

[138] Council Recommendation of 16 June 2022 on a European approach to micro-credentials for lifelong learning and employability 2022/C 243/02 EUR-Lex - 32022H0627(02) - EN - EUR-Lex
[139] Compare Qualifications | Europass
[140] Create your Europass CV | Europass

off build cost for the NQF database is set to zero, and the ongoing costs are instead captured within the annual costs. Ongoing technical maintenance is calculated as 0.18% of the build cost annually, consistent with the maintenance-rate convention used elsewhere in the model. In addition, SPI requires €400,000 per year for EU-side coordination and governance: day-to-day running of the shared database, including onboarding support for MS, data-quality monitoring, and EDICG-style coordination. This coordination cost is genuinely additional to technical maintenance and is assumed to be zero under the baseline, since no SPI-wide coordination effort would be needed without SPI. The baseline scenario instead has its own annual running cost of €400,000, covering both IT and support costs for maintaining existing tools such as ETER and DEQAR.

Table 5: Cost for the EC to provide a back-office tool to connect national databases

	One-off costs	Annual costs
Baseline	0	0.4
PO1	2.5	0.8
PO2		
PO3		

Figures are expressed in millions of euros.

Costs of the reference verifier software

Under **PO1** and **PO2**, which rely on the EU Digital Identity (DI) Wallet, the European Commission may develop and maintain a reference verifier software for the wallets. This reference verifier should demonstrate the required business rules to verify digital attestations consistently across MS, and to give national authorities a common technical basis on which to build their own verification services, rather than developing this capability independently. As no equivalent verifier currently exists for this purpose, it must be built from scratch, at a one-off cost of €1,500,000, according to experts' criteria. This covers core functions such as credential parsing, signature validation, status-list and revocation checking, and accreditation-database lookups. Maintaining the reference implementation is estimated to cost €100,000 annually, covering both keeping the implementation current and providing central support to MS as they deploy it.

Under **PO3**, which relies on the Europass Wallet, the verification infrastructure builds on the Europass European Digital Credentials (EDC) verifier already operated by DG EMPL, rather than requiring a new reference verifier as under PO1 and PO2. As this system already underpins around 76,000 credentials issued to date, EDC experts estimate a one-off cost of €500,000 covers adapting it to add accreditation-database lookups and NQF schema validation, rather than building the underlying infrastructure from scratch. The annual maintenance cost of €450,000 reflects ongoing maintenance of the verifier (€125,000), first-line support (€100,000), second-line support (€100,000), and business support (€125,000). Because this approach extends an existing, operational system rather than building a new one, both the one-off and annual costs are substantially lower than the equivalent reference verifier costs under PO1 and PO2.

Table 6: Cost for the EC to provide a reference verifier software

	One-off costs	Annual costs
PO1 (EU DI Wallet)	1.5	0.1
PO2 (EU DI Wallet)		
PO3 (Europass Wallet)	0,5	0.45

Figures are expressed in millions of euros.

Costs to support non-formal providers of micro-credentials

Under **PO1** and **PO3**, providers of non-NQF micro-credentials will also be required to issue digital attestations for the skills documents they provide. The European Commission will incur costs to support non-NQF micro-credential issuers.

Micro-credentials that are not included in National Qualifications Frameworks will not fall within the trust framework established for qualifications. They will therefore be issued as non-qualified attestations, with a comparatively low level of assurance. For example, unlike a digital attestation for a driving licence, which requires a high level of assurance due to its legal and regulatory implications, these attestations would have a level of assurance more comparable to that of digital attestations used for services such as cinema tickets or gym memberships. There are no individual approval processes or ongoing management duties for these providers. Consequently, associated costs would be limited to fixed IT infrastructure rather than variable administrative casework

On the one-off side, publishing an open, non-qualified EAA schema together with self-service adoption guidance is estimated at €400,000, reflecting the work of designing and releasing a generic schema with no accreditation logic attached. A further €150,000 one-off cost covers the production of generic guidance and helpdesk material aimed specifically at non-accredited issuers, to support voluntary adoption. On the recurring side, maintaining and versioning the open schema as EAA/European Learning Model (ELM) standards evolve is estimated at €150,000 annually, while ongoing helpdesk support for voluntary adopters is estimated at €60,000 annually. This support is deliberately light-touch, since there is no registration process or per-organisation casework to administer, in contrast to the accreditation-based costs incurred for the issuance of qualifications. These figures are Commission estimates based on the scale of comparable one-off publication and helpdesk exercises, as well as on the European Commission's experience in developing application profiles in the European Learning Model (ELM) to address different use cases and stakeholder needs.

Table 7: Cost for the EC to support non-formal micro-credential issuers

	One-off costs	Annual costs
PO1	0.6	0.2
PO2	0	0
PO3	0.6	0.2

Figures are expressed in millions of euros.

6.1.1.2 Member States

Cost of having a national registry of qualifications, accreditation and awarding bodies and to connect it to Europass

One of the main efforts under this initiative will be for MS to connect (one-off) and maintain (recurrent) the databases containing information on qualifications, awarding bodies, and accreditation. As explained in the description of the policy options, in many MS this

information would already be available, while in others, MS would need to either digitalise or collect it. For these calculations, the baseline considers differences in MS readiness[141].

Under **PO2**, these databases will need to contain information not only on new qualifications, but also on those awarded over the past ten years. This is why the one-off costs for PO2 are expected to be higher than for **PO1** and **PO3**.

The ten-year cut-off is anchored to 2017, the year in which the EQF Recommendation was revised and by which most MS had established or referenced their national qualifications frameworks (NQFs) to the EQF. By the end of 2017, 34 of the then 39 participating European countries had referenced their NQFs to the EQF, with the EQF acting as a catalyst for the development of NQFs across Europe. Going further back would mean reviewing qualifications from before these frameworks existed, requiring substantially more effort for comparatively little gain. Conversely, a shorter cut-off would not proportionally reduce MS' workload, since the core verification and mapping tasks remain largely fixed regardless of the period covered. Ten years therefore offers a proportionate, defensible balance between comprehensiveness and administrative burden.

Once qualifications are included in the national registry of qualifications, they become part of a trust framework that enables both the automatic issuance of a digital attestation and the automatic verification of a digital attestation within that trust framework. Such attestations can then be treated in the same way as the newly awarded digital qualification attestations, with minimal marginal unit costs for the issuance and verification of these digital attestations (set at €3.5 and €3 respectively per attestation). These minimal costs reflect the fact that, once requested, the issuance and verification of qualifications within the trust framework should require no further human interaction: the process is fully automated from that point onward, meaning the marginal unit cost is low.

Therefore, the 10-year backlog included in **PO2** can be considered an initial investment that will pay off, since it will be far cheaper to automatically issue digital attestations for qualifications already included in the databases than to issue them for past qualifications, where the administration would need to manually collect all the necessary information each time a citizen requests one for working across borders. It will also be cheaper for employers to verify these qualifications that belong to the 10 years backlog of PO2 than the historical ones (details are presented below, in the direct benefits section).

Table 8: Cost for MS to have, connect and maintain national registries of qualifications, awarding bodies and accreditation

	One-off costs	Annual costs
PO1	2.5	0.9
PO2 (+ 10 years backlog)	3.1	1.4
PO3	2.5	0.9

Figures are expressed in millions of euros.

A sensitivity analysis can be found below to show how this extra effort of creating a 10-year backlog would pay off (further details can be found in Annex 4.1.3). With the 10-year backlog, an estimated share of past qualifications benefits from the cheaper unit cost of issuance and verification. Without the 10-year backlog, however, all past qualifications are issued and verified at the higher unit cost.

[141] See annex 8 (5).

Table 9: Sensitivity for the 10 years backlog

Costs		With the 10 years backlog	Without the 10 years backlog
Cost for MS to have, connect and maintain **national registries** of qualifications, awarding bodies and accreditation	One-off costs	3.1	2.5
	Annual costs	1.4	0.9
Cost for MS to **issue past qualifications**	Recurrent costs over 10 years (discounted)	68.4 – 86.3	147.2 – 185.6
Cost savings for employers to **assess qualifications**	Recurrent costs over 10 years (discounted)	67.5 – 85.1	72 – 90.8

Figures are expressed in millions of euros.

Cost of providing a verification software

Reading digital attestations requires dedicated verification software, and the cost structure differs sharply by policy option. Under **PO1** and **PO2**, which rely on the EUDI Wallet, labour market actors are free to develop their own verification software, but they can always use the version MS must make available to any third party.

Therefore, MS, must localise and integrate the EU reference verifier (built centrally by the European Commission) into their own national wallet trust infrastructure, at an estimated one-off cost of €280,000 per Member State, plus €70,000 annually to host, update, and support it thereafter. This is a considerably lighter lift than building verifier software from scratch, but still a new requirement for all MS under SPI, regardless of their existing digital readiness.

Under **PO3**, by contrast, labour market actors simply use the existing Europass Viewer[142] to read qualifications stored in people's Europass wallets, and since the underlying Europass EDC verifier is already hosted and centrally operated at EU level, no Member State needs to provide extra verification software or build separate national infrastructure, so this cost is set at zero.

Table 10: Cost for MS to provide a verification software

	One-off costs	Annual costs
PO1	7.6	1.52
PO2		
PO3	0	0

Figures are expressed in millions of euros.

Cost of providing an issuing infrastructure for qualifications

For the calculation of the costs associated with the issuance infrastructure for new qualifications, the model used is relatively complex (see Annex 4.1 for further details) and

[142] EDCI Viewer

distinguishes between three types of actors, as they are not interchangeable and are affected differently across the policy options:

- **Education and training institutions/issuers of qualifications** are the entities that actually deliver learning and award qualifications (e.g. a university or training centre). The calculations consider the different number of institutions per MS as presented in the baseline (see annex 4.1. for further information).
- **Awarding bodies** are the entities formally accredited to award a given qualification. In many cases this is the same organisation as the education and training provider, but not always (for example, a national exam board may award a qualification on behalf of multiple training providers). The model that is used for calculating these costs considers these differences across MS (see Annex 4.1).

- **Issuers of digital attestations** only exists in the context of the EUDI Wallet. This is the entity that digitally signs and issues the attestation into the wallet. Under PO1 and PO2, this role is separate from the awarding body; under PO3, it is not, the awarding body performs both roles itself.

This last distinction is the main driver of cost differences between the policy options and is explained below.

Under **PO1** and **PO2**, issuance is centralised through national or sub-national Qualified Trust Service Providers (QTSPs) or public-authority platforms. Awarding bodies do not hold their own signing capability; instead, a delegated issuer signs digital attestations on their behalf, under a formal mandate. This reflects a real regulatory barrier: becoming a QTSP, or an equivalent public-body electronic attestation of attributes (PuB-EAA) issuer, involves requirements that most awarding bodies would not meet or want to meet on their own. As a result, under PO1 and PO2 a separate issuer infrastructure needs to be built and maintained.

Under **PO3**, issuance instead relies on the existing Europass European Digital Credentials (EDC) ecosystem. This ecosystem is gated by the same trust framework as under PO1 and PO2, an accreditation database and a register of authorised awarding bodies and is granted legal equivalence to EUDI-native attestations. However, because EDC does not carry the same QTSP/public-authority barrier, issuance under PO3 is distributed: each authorised awarding body acquires and holds its own e-seal and issues attestations directly, without needing a separate delegated issuer. This extends EDC's existing "any institution with a seal" model to a gated, accredited population, and removes the need to build a national issuer platform.

Several **one-off costs** apply regardless of policy option. At the national level, a Member State designing a fully bespoke attestation profile faces a one-off cost of €350,000, or €60,000 if it instead adopts the common, harmonised SPI profile; this is a national-level cost, independent of how many institutions or awarding bodies later connect to it. At the institutional level, integrating an education or training provider's systems (mapping to SIS/ELM) costs €20,000 per institution, plus a €4,000 harmonisation delta where the institution needs to align with the common profile; this cost applies regardless of how attestations are later issued. Setting up an awarding body (covering the mandate, accreditation evidence, and trust registration) costs €25,000 per body, plus a €6,000 harmonisation delta; this reflects the cost of formally accrediting and registering an awarding body and is the same across all three policy options since they share the same underlying accreditation database.

By contrast, the one-off cost of establishing the separate "issuer" role differs sharply depending on the policy option, since this is where PO1 and PO2 diverge from PO3. Under

PO1 and **PO2**, setting up a centralised issuer platform costs €250,000 per issuer, covering the national signing infrastructure (HSM, high availability, revocation, and onboarding), plus a €45,000 harmonisation delta for issuers that are already established; this is the direct cost of overcoming the QTSP/PuB-authority barrier described above. Under **PO3**, there is no separate issuer platform to build: instead, each awarding body acquires its own e-seal directly, at a one-off cost of €8,000 per body, plus a €2,000 harmonisation delta for bodies that already hold a seal (for example, existing EDC issuers). This is significantly cheaper, since the awarding body is issuing on its own behalf rather than requiring a separate issuer infrastructure to be built for it.

The annual unit costs reflect the ongoing operational expenses required to maintain the issuance infrastructure once it is in place, and here too the policy options diverge in how issuance capability is maintained. Under **PO1** and **PO2**, maintaining the centralised issuer platform is estimated by experts to cost €60,000 per issuer annually, covering platform operations, seal renewal, and conformity reassessment, a cost that applies only under these two policy options, given their reliance on a national issuer platform. Under **PO3**, by contrast, there is no national platform to maintain; instead, seal maintenance takes place at the awarding-body level, at a considerably lower annual cost of €1,500 per body, reflecting the more distributed maintenance burden of this model.

Several other annual costs, however, are shared across all three policy options. Maintaining each awarding body, including mandate maintenance and updates to accreditation evidence, which is estimated by experts to cost €4,500 per body annually, regardless of policy option. Based on experts' criteria, supporting each institution costs €3,500 annually, covering helpdesk services, connector maintenance, and retraining.

The calculations are based on the actual number of qualification issuers across the EU (32,788 - 44,354) and consider differences between MS in terms of their level of digitalisation readiness and governance structures for issuing qualifications. The number of qualifications issued is not considered in these calculations, as the individual cost of issuing digital attestations for new qualifications is not attributed to the SPI. The reason is that under the baseline scenario, MS would in any case provide an attestation of their qualification (whether in paper or digital format) to new graduates.

Table 11: Costs for MS to provide an issuing infrastructure

	One-off costs	Annual costs
PO1	417.0 - 529.9	68.5 – 82.5
PO2		
PO3	457.0 – 578.4	70.2 – 84.4

Figures are expressed in millions of euros.

Cost of issuing past qualifications in a digital interoperable format

Unlike new qualifications, for which the baseline already assumes that MS issue an attestation irrespective of the SPI, this impact assessment attributes the costs associated with issuing digital attestations for past qualifications when these are requested by citizens for labour mobility across the EU. The model therefore distinguishes between the one-off costs required to establish the necessary verification and issuance capability and the marginal cost of processing each individual request.

The cost estimates assume that MS having to issue digital attestations for historical qualifications obtained before the establishment of their National Qualifications Framework

(NQF) would first need to put in place a dedicated archive-verification capability. Considering the experts' criteria, a one-off cost of €150,000 per Member State is assumed to cover the establishment of the organisational and technical capacity required to locate historical records, verify their authenticity, assemble the supporting accreditation evidence and to provide the means to encode the information required to issue a trustworthy digital attestation. The one-off cost is likely to vary significantly by Member State. For example, the Netherlands has an extensive centralised register of qualifications dating back to around 1988. However, the picture is less clear for other MS, with varying degrees of centralisation and digitalisation windows. Therefore, the one-off cost estimate used in this assessment assumes the creation of procedures based on a fully paper archive-based system. This cost is **common to the 3 policy options**, and it does not depend on the level of readiness of the MS.

No empirical data currently exists on the marginal costs of digitalising past qualifications or on the costs of manual versus automatic issuance, as no Member State has yet implemented the automatic issuance of already awarded qualifications at scale. In the absence of such data, the parameters used in the calculations reflect plausible estimates based on expert judgement about what each process actually entails.

Specifically, the estimates distinguish between two scenarios: a) issuing a qualification that is already part of a trust framework, where the qualification's data is structured, verified and readily accessible, allowing for a largely automated process at minimal marginal cost; and b) issuing a qualification that requires additional administrative steps to gather the necessary information (for instance, retrieving and validating data held in non-digitised or non-standardised formats) which involves manual effort and therefore carries a higher marginal cost. The cost parameters used in the calculations were derived from this reasoning about the underlying process steps, rather than from observed cost data.

Therefore, once the capability to issue digital attestations for historical qualifications has been established, a unit cost of €300 per qualification is assumed for the manual verification process, reflecting the effort required to retrieve archived records, validate them against paper or legacy sources where necessary, compile the evidence in line with the embedded-evidence approach used for historical qualifications, and translate the information into the required structured digital format required for issuance as a digital attestation. These figures are Commission estimates based on expert criteria, drawing upon typical costs to replace a lost paper certificate (€50 - €150) and taking into account the additional work of creating a digital attestation from it. No harmonised EU-wide process or cost benchmark currently exists for the digitisation and verification of legacy qualification records. Institutions may find ways to optimise the process, for example, by using AI or other digitalisation techniques.

However, for PO2, a distinction must be made for the subset of past qualifications falling within the 10-year backlog. Under this option, MS have to make the extra effort to bring these qualifications into the same trust framework as newly issued qualifications (this extra effort has already been quantified for PO2 under the 'cost of having a national registry of qualifications, accreditation and awarding bodies and to connect it to Europass'). As a result, once this initial integration has been completed, the issuance of digital attestations for these recent qualifications becomes an automated process triggered upon request by the qualification holder, with only a marginal unit cost estimated at €3.5 per qualification. This marginal unit cost is based on an estimate of the fees that a QTSP may charge per attestation issuance, although it is recognised that QTSP charging models are not available at the time of writing. In reality, the unit costs may vary by QTSP, volume and time. In addition, the unit costs could be lower for attestations issued by public authorities. This is the main cost difference between **Policy Options 1 and 2**.

Since the EU has no direct data on the vintage of qualifications used for labour mobility across MS, the model estimates their distribution using a proxy based on the age profile of EU movers, as younger movers are more likely to hold recently acquired qualifications. The fact that 15–34-year-olds made up around 36% of EU movers in 2024[143] provides a starting point, leading to an assumption that roughly 40% of qualifications presented by movers are either newly issued or issued within the previous 10 years, with the remainder classified as older historical qualifications. This distribution is then projected forward over the 10-year appraisal period, with the share of newly issued qualifications growing as new cohorts accumulate, historical qualifications declining as older cohorts are replaced, and the 10-year backlog category remaining broadly stable, since these qualifications' holders are expected to stay active in the labour market throughout the period[144].

By contrast, the difference between **Policy Options 1 and 3** does not arise from the issuance process itself, but from the higher uptake of the EU Digital Identity Wallet under Policy Option 1, which increases the number of requests for historical qualifications.

The calculations are based on the estimated annual range of EU movers whose qualifications are expected to be verified (220,110–277,530) and on the projected progressive uptake of each of the two wallets. For this reason, the recurrent costs cannot be presented as a simple annual figure. They assume that all mobile citizens who possess a wallet and need to present a historical qualification in another EU MS will actively request its issuance as a digital attestation. The model also incorporates the projected distribution of qualification vintages over the 10-year period, distinguishing between recent (those within the 10 years backlog[145]) and older qualifications in accordance with the assumptions set out in Annex 4.

Table 12: Cost for MS to issue past qualifications

	One-off costs	Cumulative recurrent costs over 10 years (discounted)
PO1 (EU DI Wallet)	4.1	147.2 – 185.6
PO2 (EU DI Wallet + 10 years backlog)		68.4 – 86.3
PO3 (Europass Wallet)		73.6 – 92.8

Figures are expressed in millions of euros.

6.1.1.3 Issuers of non-formal micro-credentials

Cost of issuing digital attestations for micro-credentials

Under **Policy Options 1 and 3**, non-NQF micro-credential issuers would also be required to issue verifiable and interoperable digital attestations for their skills documents and would therefore incur the associated implementation costs. As discussed in the baseline, the number of affected issuers cannot be determined precisely; a lower-bound estimate of 45,000 non-NQF micro-credential providers across the EU-27 is therefore used. Given the lack of sufficiently robust data, the model does not attempt to disaggregate this population by Member State. Each provider is assumed to incur a one-off capability cost of €5,000 to acquire a seal and establish the technical capacity to issue digital attestations according to expert criteria, resulting in an estimated total one-off cost of €225 million. In addition, each

[143] Annual report on intra-EU labour mobility - Employment, Social Affairs and Inclusion
[144] Further details are presented in Annex 4.
[145] Annex 4 includes a sensitivity analysis to show the difference in case the backlog is not included in this option.

provider is assumed to bear an annual maintenance cost of €800, corresponding to an estimated €36 million per year across the EU. These costs are borne entirely by the issuing organisations rather than by public authorities. The model further assumes full adoption of SPI-compatible, harmonised issuance, reflecting the legal obligation under Policy Options 1 and 3. In practice, however, such an obligation would be difficult to enforce given the nature of the non-formal education and training sector, as providers could choose not to issue micro-credentials following the completion of training rather than comply with the new requirements. This uncertainty should also be considered alongside the fact that it is not possible to establish an upper bound for the number of organisations affected by this obligation. In principle, the obligation could extend to any organisation that issues a micro-credential following the provision of a short course or other learning activity in a non-formal learning setting.

Table 13: Cost for issuers of non-NQF micro-credentials to issue digital attestations

	One-off costs	Annual costs
PO1 (EU DI Wallet)	225	36
PO2 (EU DI Wallet)	0	0
PO3 (Europass Wallet)	225	36

Figures are expressed in millions of euros.

6.1.2. Direct benefits

Three main stakeholder groups will directly benefit from any of the three policy options under Action 1 of the Skills Portability initiative:

- **Employers** (and other labour market actors who check qualifications): It will be cheaper for them to assess the meaning and authenticity of a qualification issued in another Member State.
- **Workers**: It will be cheaper for them to present official proof of their qualification to an employer in another Member State.
- **Issuers of qualifications**: They will be contacted less often by employers and other labour market actors seeking to verify the authenticity of a qualification they have issued.

In addition, this section discusses, without quantifying, two further areas where the initiative is expected to have considerable unintended positive impacts: national labour markets and access to further education and training.

6.1.2.1 Employers

Cost savings for assessing qualifications issued in another Member State

Leaving aside the regulated access to certain professions, **employers have full discretion to decide** how much weight to give a qualification presented by an applicant, whether to consider them eligible for a vacancy, or to place them in a wage category linked to their qualification level.

Like any economic actor, however, **employers benefit from reliable information** to make informed decisions and reduce risk and uncertainty. When employers lack the understanding of level and content or the capacity to verify the authenticity of a qualification issued in another Member State, that **qualification's signalling value in the labour market is**

reduced. This creates an incentive for both workers and employers to spend time and money obtaining a comparability statement, even when they are not required to.

Some employers may want greater reassurance and spend more time on this or ask the applicant for a comparability statement issued by an assessment body (a trusted third party to which they outsource the assessment). Others may accept the qualification at face value. Employers with less HR capacity (presumably SMEs) may have less capacity to carry out this assessment, even though their understanding of the qualification would be equally valuable to them. Similarly, employers facing greater labour shortages, regardless of size, may be under pressure to fill vacancies quickly and have less time to spend on assessment. AI is expected to facilitate this in-house assessment. However, the reliability of information available online cannot be guaranteed unless MS are obliged to share official, standardised information on their qualifications. Also, the fact that the qualification is genuine and linked to the holder cannot be easily established with AI.

Given the uncertainty and variability in employers' behaviour regarding the effort spent understanding and comparing a qualification from another Member State, this impact assessment does not quantify these benefits for employers. However, under all three policy options, all employers and labour market actors, including SMEs, will benefit from access to reliable and comparable information on qualifications across the EU, displayed in a user-friendly manner through the Europass comparison tool. For this cost saving quantification exercise, the focus is placed on the time spent by employers verifying the authenticity of a qualification. The model assumes in the **baseline** an **average of 2 hours** (i.e. 0.25 staff-days) needed to check the authenticity of a paper qualification from another EU Member State at an average day rate of €411.68[146], which translates into a paper-based cross-border employer assessment cost of **€103 per qualification**. This is the baseline rate, held flat throughout, regardless of what any MS builds independently. Under SPI, this rate continues to apply to whichever share of movers has not adopted the wallet. Again, in the dynamic baseline, it is not possible to make a precise quantitative estimation of how employers go about checking the authenticity of a qualification. However, the uncertainty around these figures is not necessarily a major concern from a cost-benefit perspective. Employers who were already spending time and money checking the authenticity of qualifications will, under any of the 3 policy options, face only marginal residual costs (not created by this initiative but rather remaining despite of it), so net benefits are guaranteed. Employers who previously could not afford these checks or waiting for a comparability statement and were pushed to accept or reject qualifications without verifying them, will now benefit from automatic verification of qualifications at marginal cost if they wish so. It could be argued that this will be of particular help to SMEs, which, having fewer human resources at their disposal, will benefit on an equal footing from automatically verifiable digital credentials at marginal cost.

Under **Policy Options 1 and 2**, the model estimates that employers will still face a marginal residual cost of €3 per verification (the verification is fully automatic, though there is an expectation that the employer may wish to view the information), which remains flat throughout the period. This applies only to the share of EU movers with "new" qualifications, or, in the case of Policy Option 2, qualifications from the past 10 years. However, "historical qualifications" will still carry a cost of €20, since they contain embedded evidence that must be checked, so the verification is not that automatic.

Under **Policy Option 3**, the model estimates that employers will face a cost of €10 per verification of the new digital attestations. This is higher than under PO1 and PO2 due to the additional checks still required under the Europass wallet, such as identity verification.

[146] See annex 4 for further details.

However, for the share of historical qualifications converted into digital attestations, the remaining verification cost for employers is still €20.Each of the options considers the range of annual EU movers for whom their qualification will have a use in the labour market (220,110 –277,530), and the progressive uptake of the wallets over the 10-year period. The vintage distribution of qualifications used for labour mobility across MS is apportioned as explained in the section above and detailed in Annex 4. In this exercise of quantification, the calculations for the baseline scenario yield total costs to employers of €226.7–285.9 million over 10 years.

The calculations of benefits (cost savings) for employers are deliberately conservative, as they assume that each jobseeker holds only one qualification, and that an employer needs to check the authenticity of only one qualification per vacancy in which a qualification is listed as a requirement. There is no official data[147] on how many applications a jobseeker submits before securing a job, nor on how many applications an employer receives or reviews per vacancy. It is nonetheless reasonable to guess that the actual figure is higher than one, meaning the true benefits for employers are likely correspondingly larger than estimated here.

Table 14: Cost savings for employers to assess qualifications

	Cumulative recurrent cost savings over 10 years (discounted)
PO1	67.5 – 85.1
PO2	72 – 90.8
PO3	32.8 – 41.4

Figures are expressed in millions of euros. Costs savings start in year 4. Present value 2026-2040.

Finally, it is also relevant to discuss here the potential cost savings for **other labour market actors** that also check the meaning and the authenticity of qualifications issued in another Member State: **competent authorities** in charge of issuing recognition decisions to access a regulated profession and **assessment bodies** that conduct thorough comparability statements. Regardless of the evolution of their volume of work, they all would benefit from the availability of official and comparable information on qualifications from another Member State and from automatically verifiable digital attestations for qualifications.

6.1.2.2 Workers

Costs savings due to fewer and cheaper comparability statements

Either to ensure that their qualifications have signalling value in another Member State, or because a potential employer has requested it, some workers seek to obtain a comparability statement issued by an assessment body. The annual cost of issuing comparability statements in the baseline is estimated by combining the expected annual volume of requests (90,000) with the average cost of processing each request (€125–€375). On this basis, the total annual cost is estimated to range from **€11.3 million to €33.8 million.**

[147] For this Impact Assessment, Public Employment Services were consulted via email, and none reported ever having conducted an estimation exercise for this number. Some studies have attempted to do so. For example, a survey conducted by StepStone Belgium among 44,500 Belgian candidates found that it took an average of 18 applications to obtain an interview, and around 3 interviews to secure a job offer, suggesting an order of magnitude of roughly fifty applications to obtain a job. These results should nonetheless be interpreted with caution, as the survey dates from 2018 and covered users of just a recruitment platform Persbericht_AntwoordOpSollicitatie_FR.pdf

Under all three policy options, reductions are assumed both in the number of comparability statements requested and in the cost of obtaining them. Based on SME Panel results, 62% of employers request comparability statements primarily to: (i) better understand learning outcomes in relation to domestic qualifications, (ii) verify qualification authenticity, (iii) determine the appropriate wage or pay category, and (iv) recognise and value employees' qualifications. Since digital attestations and readily available official information on qualifications would address these needs directly, it is assumed that, under full adoption, these employers would no longer require a separate comparability assessment. This potential reduction is reflected in a 62% decrease in demand under **PO1**. A slightly lower reduction is assumed for **PO2** (60%), reflecting its more limited coverage, which nonetheless retains the qualifications most relevant to the labour market. **PO3**, meanwhile, is assumed to reduce demand by 45%, reflecting the comparatively weaker trust framework associated with the Europass wallet relative to the EU Digital Identity Wallet.

The assumed reduction in the cost of comparability statements is more conservative: 20% under **PO1** and **PO2**, and 15% under **PO3**. These estimates are based on stakeholder feedback indicating that digitalisation is likely to streamline assessment procedures and reduce administrative effort. As no robust evidence is available to quantify this effect, a cautious reduction factor is applied, with a lower estimate for PO3 for the reasons outlined above.

The projected uptake of the different wallets over 10 years is also factored into the calculations to present the cumulative benefits.

Table 15. Cost savings for workers in comparability statements

	Cumulative recurrent cost savings over 10 years (discounted)
PO1	27 – 81
PO2	26.3 – 79.1
PO3	10.4 – 31.2

Figures are expressed in millions of euros. Costs savings start in year 4. Present value 2026-2040.

This cost saving for workers could potentially overlap with the cost saving for employers presented above. However, since the benefits for employers are estimated very conservatively, it remains relevant to present this saving separately, as it is likely to capture value not already reflected in the employer-side estimate.

Finally, there is another direct economic benefit for workers that could be considered in this impact assessment, relating to comparability statements: the time it takes to obtain one. However, since it is difficult to prove that this time would directly translate into earlier access to a job in another Member State, it is preferable not to monetise it, and instead to mention it only as a qualitative consideration.

6.1.2.3 Issuers of qualifications

Cost savings due to fewer third-party requests to verify the authenticity of a qualification

In the baseline scenario, qualification issuers are frequently contacted by third parties, such as employers, recognition authorities or other organisations, to verify the authenticity of qualifications. According to the Qualification Issuers Survey, 290 out of 574 respondents (50.5%) reported having received requests from third parties to verify the authenticity of diplomas. The annual frequency of such contacts was estimated by annualising the survey

response categories on contact frequency (i.e. once a week or more, several times per month, a few times per year, once a month, and less than once a year). The resulting estimate ranges from 16 to 30 contacts per year, with the lower and upper values reflecting different interpretations of the open-ended "once a week or more" category.

This cost in the **baseline** is estimated by combining the number of qualification issuers (32,788 - 44,354), the share of issuers expected to receive requests for information on qualifications (50.5%), the average number of requests received each year (16–30), the average time required to respond to each request (estimated at 0.25 working days), and the average daily wage in the public sector (€319). On this basis, the annual cost in the baseline is estimated to range from approximately **€24.9 million to €53.6 million**.

Under all policy options, digital attestations will enable the automatic verification of qualification authenticity, substantially reducing the need for third parties to contact qualification issuers directly for this purpose. For PO1 and PO2, the robustness of the EU Digital Identity Wallet trust framework is expected to ensure that only a residual 10% of verification requests for digital attestations will still require direct contact with qualification issuers. The estimated impact is the same for PO1 and PO2.

Under **PO3**, given that the Europass trust framework is less robust, **30%** of cases are still expected to be verified by issuers of qualifications. The projected uptake of the different wallets over 10 years is also factored into the calculations to present the cumulative benefits.

Table 16: Cost saving for issuers of qualifications to verify them

	Cumulative recurrent cost savings over 10 years (discounted)
PO1	65.5– 166.10
PO2	65.5– 166.10
PO3	25.6 – 65

Figures are expressed in millions of euros. Costs savings start in year 4. Present value 2026-2040.

On top of this, **PO1** and **PO3** could consider cost savings for an extra pool of issuers: **issuers of non-NQF micro-credentials**. Under these policy options, they would also have the obligation to issue digital attestations, and therefore they would also have the potential cost saving of not having to carry out this verification. However, it is difficult to say whether the extent to which non-NQF micro-credentials are verified is like that of qualifications.

For this quantification exercise, we take as a basis the answers to the Survey of Issuers of Qualifications. Among respondents to the survey, 69 indicated that they issue Adult and Continuing Education Certificates, Micro-credentials, or Professional Licenses/Certifications. Of these, 27 reported having been contacted to provide information about the micro-credentials they issue, corresponding to approximately 39% (27/69). Applying the same annualisation convention used for issuers of qualifications, this yields an estimated weighted average of approximately 10 contacts per year. As explained in the baseline, we take 45,000 as the bare minimum number of non-NQF micro-credentials providers and also factor in the uptake of the wallets over 10 years.

Table 17: Cost saving for issuers of non-NQF micro-credentials to verify them

	Cumulative recurrent cost savings over 10 years (discounted)
PO1	43.5
PO2	0

PO3	17

Figures are expressed in millions of euros. Costs savings start in year 4. Present value 2026-2040.

These numbers are presented separately because they need to be interpreted with more caution. It could reasonably be argued that employers are less likely to verify the authenticity of non-NQF micro-credentials with issuers (e.g. a certificate for an upskilling course issued by a non-profit organisation) than they would for a formal qualification (e.g. a bachelor's degree issued by a university).

6.1.2.4 Unintended positive impacts

This impact assessment only calculates and includes as direct benefits those that are related to the free movement of workers. However, qualifications are used for many other purposes[148] other than signalling skills when applying for jobs in another MS. Therefore, coordinated digitalisation under the SPI is expected to generate significant unintended positive impacts in other areas.

National labour markets, including national workers holding a qualification from another EU country. Verifiable digital credentials will make verification and assessment processes cheaper for employers, including for purely domestic qualifications, not only cross-border ones. This spillover would not materialise in MS that had already developed their own national digital credential systems for qualifications, since they would already capture these efficiency gains. However, by accelerating and effectively mandating digitalisation, the SPI ensures that MS which would otherwise have continued to rely on paper-based or fragmented systems also benefit from these efficiency gains, extending them beyond the cross-border use case that motivates this initiative. In terms of magnitude, this would affect all the workers that apply for jobs in a qualification-relevant position and that are not mobile workers. Within this group, there is also the specific case of national workers who hold qualifications issued in another Member State. These are not considered EU mobile workers, but insofar as they were EU mobile students, they will now benefit from the Skills Portability Initiative to use their qualifications in their own Member State. To get an idea of the potential magnitude of this case, according to Eurostat[149], in 2024 there were 413,700 tertiary students from abroad who graduated in the EU. These are degree-mobile graduates: students who completed their entire qualification in a Member State other than the one where they finished secondary education. Around 43% of students from abroad studying in the EU come from elsewhere in Europe, suggesting that a substantial share of these full-degree graduates are EU nationals who, after completing their studies abroad, may potentially return to their home Member State to enter the labour market with a qualification obtained in another MS.

Access to further education and training. Interoperable and verifiable digital credentials will also facilitate access to further education and training, both in a national context and in another Member State. Many comparability statements are currently requested precisely for this purpose[150], to support applications for further studies in another Member State, and a trusted, easily verifiable digital credential would streamline this process, reducing reliance on

[148] As mentioned in the EQF recommendation, qualifications serve a variety of purposes. They signal to employers what their holders in principle know and are able to do ('learning outcomes'). They may be a prerequisite for accessing certain regulated professions. They help education and training authorities and providers to determine the level and content of learning acquired by an individual. They are also important for an individual as an expression of personal achievement.

[149] Learning mobility statistics - Statistics Explained - Eurostat

[150] No formal data is available about the number of comparability statements that ENIC-NARIC issues for the purpose of accessing further learning.

the same cumbersome, paper-based comparability procedures that currently affect labour mobility. To get an idea of the potential magnitude of this area, according to Eurostat, there were 19.1 million tertiary education students in the EU in 2024, and of the 1.83 million students from abroad undertaking tertiary level studies across the EU that same year, 43% came from within Europe[151]. This gives a sense of the scale of students in the EU that could use their digital attestations for qualifications to access further learning and the intra-European student mobility that could benefit from smoother, digitally verifiable recognition of qualifications.

6.1.3. Overview of cost and benefits

Table 18: Summary overview of total costs and benefits (present value, 2026-2040, in EURO million, the benefits start to occur from year 4, after transition period)

	PO1	PO2	PO3
Cost for the European Commission	13.5	11.0	16.6
Costs for the MS	1,183.2 – 1,363.8	1,032.7 - 1,266.3	1,142.4 - 1309.9
Costs for issuers of non-NQF micro-credentials	281.2	0	281.2
TOTAL COSTS	1477.9 - 1658.5	**1,043.7 - 1,277.3**	1440.2 1607.7
Costs savings for employers	67.5 - 85.1	72 - 90.8	32.8 - 41.4
Costs savings for workers	27 - 81	26.3 - 79.1	10.4 - 31.2
Cost-savings for issuers of qualifications	65.5 - 166	65.5 - 166	25.6 - 65
Cost-savings for issuers of non-NQF micro-credentials	43.5	0	17
TOTAL QUANTIFIED BENEFITS	203.5 - 375.6	**163.8 - 335.9**	**85.8 - 154.6**
Net present value (highest)	-1102.30	-707.7	-1,285.76
Net present value (lowest)	- 1455,0	-1,113.5	-1521.9

6.1.4. Indirect benefits

All POs are expected to bring some indirect benefits, which are potentially significant but cannot be estimated reliably given the uncertainties concerning the exact extent to which portability of qualifications impacts labour market outcomes.

[151] Learning mobility statistics - Statistics Explained - Eurostat

Levels of **overqualification** are higher among EU citizens working in another Member State and overqualification results in a wage penalty. Overqualification can have different causes (e.g. insufficient knowledge of the language of the host country, or wage arbitrage, where workers accept a lower-skilled position because the absolute wage still exceeds what they would earn in their home Member State). In cases where currently the relatively lower signalling value of qualifications from another MS leads to lack of or only partial acceptance of these qualifications, the POs would improve the opportunities for EU mobile workers to make a fuller use of their qualifications. This could contribute to increased wages for those workers.

The POs could also have some indirect impacts on **productivity** and **labour market participation**. The literature on labour market mismatches, of which overqualification is a specific case, assumes that reducing mismatches stemming from misunderstandings of information about skills or qualifications could increase overall productivity by about 5% on average, and by more than 8% in some countries.[152] In terms of labour market participation**,** workers are presumed to actively search for employment (and find it) when their perceived chances of securing a well-paid job increase.[153] Addressing the information problem of foreign qualifications and credentials within EU could increase both the chances of finding a job abroad and of finding a well-paid job. This in turn could contribute to a (slight) increase in the number of active people in the labour force.

The effects are expected to be similar across the three POs. Given that the labour market value of micro-credentials is lower, these impacts under PO1 and PO3 are not expected to be significantly higher. Similarly, the automatic inclusion of qualifications from the previous 10 years in PO2 would mean for workers that they get their digital qualifications quicker compared to PO1 and PO3 but eventually those workers would also benefit from the digital attestations under PO1 and PO3, meaning that high level indirect benefits are likely to be similar.

Finally, ensuring a **standardised approach to digital qualifications** and embedding legal, and technical interoperability in the early stages of MS' digitalisation efforts can potentially lead to costs savings in the future and support effective investment of public funds. While these benefits cannot be reliably established, they would likely be more pronounced in PO1 and PO2 given that in these POs use is made of a more general framework of the EUDI Wallet rather than investing in a system dedicated only to qualifications.

[152] OECD (2024), "Adult skills and productivity: New evidence from PIAAC 2023", OECD Policy Briefs, No. 11, OECD Publishing, Paris, https://doi.org/10.1787/8bc2c556-en.)

[153] Teulings & Gautier (2004) show that the extent of the market has direct effects on the search behaviour, effectively increasing the participation rate, which has been shown empirically in Gautier & Teulings, 2006). Using the opening of the Swiss labour market, Beerli & Peri (2015) show positive wage and participation effects of border opening. For displaced workers, Harmon (2013) shows the positive impact of the size (in Teulings&Gautier terms, "thickness") of the market; a larger labour market leads to longer employment spells and higher wages (Harmon, 2013). See: Beerli, A., & Peri, G. (2015). *The Labor Market Effects of Opening the Border: Evidence from Switzerland* (NBER Working Paper Series, No. 21319). National Bureau of Economic Research. https://doi.org/10.3386/w21319. Gautier, P. A., & Teulings, C. N. (2006). How Large are Search Frictions? Journal of the European Economic Association, 4(6), 1193–1225. NA Harmon (2013): Are workers better matched in large labor markets?, SOLE Job Market. Paper. Teulings, C. N., & Gautier, P. A. (2004). The Right Man for the Job. *The Review of Economic Studies*, *71*(3), 553–580. https://doi.org/10.1111/0034-6527.00296

6.1.5. Indirect costs

No indirect costs have been identified for the POs.

6.1.6. Functioning of the internal market

The POs are expected to contribute positively to internal market functioning and **EU competitiveness** by **reducing information asymmetries** and **administrative barriers** around qualifications, lowering recruitment uncertainty and shortening hiring timelines. While mobility decisions are driven by a wide range of non-economic factors, family ties, language barriers, housing and personal preferences, facilitation of cross-border hiring can have some effect on skills mismatches and improve labour allocation, particularly in tight labour markets and border regions.

SMEs are expected to benefit relatively most from the initiative. Currently, SMEs face higher relative costs when assessing non-national credentials due to limited HR capacity and expertise. The availability of information on qualifications including fully verifiable digital credentials specifying level and content of qualifications would substantially reduce the time and resources required for qualification verification, lowering recruitment costs and barriers to hiring mobile workers. This is particularly relevant for SMEs operating in sectors with high mobility needs or short recruitment cycles, where the ability to assess and trust non-national qualifications quickly can be decisive.

While **PO1 and 3** offer the broadest credential coverage and would in principle maximise the pool of verifiable credentials, their inclusion of credentials outside NQFs raises quality assurance concerns that may undermine employer trust, particularly among SMEs with limited capacity to assess credential reliability. **PO2**, by restricting coverage to qualifications included in NQFs while providing retroactive digitalisation for the cohort that is most likely to be mobile, strikes a more effective balance between coverage and credibility, and is therefore expected to deliver the most tangible and reliable benefits for SMEs. It is also worth stressing that employers can rely on MS-provided verifier software, particularly useful in the case of SMEs, so that they need not bear any cost of integrating verification software into their HR or recruitment procedures.

Beyond internal market effects, the initiative has the potential to **strengthen EU competitiveness at the global level**. By setting up a harmonised framework for the digital issuance and verification of qualifications, built around the EUDI Wallet and common data standards for **POs 1 and 2**, and based on tools facilitating comparability of qualifications, the EU could position itself as a standard-setter in the emerging global infrastructure for skills and credential portability. As third countries and international organisations develop their own digital credential systems, EU standards are likely to serve as a reference model, creating a de facto basis for comparability and interoperability at the international level. This dynamic is directly relevant to **Action 3 of the SPI**, which covers third-country nationals. [154]

6.2. Social impacts

The proposed policy options are expected to positively impact **labour mobility, employment, and working conditions** for EU mobile workers, though effects on employment and mobility levels may remain modest as explained in the section above. Primary benefits will relate to working conditions and job quality, with **impact expected to**

[154] Many third countries and regions outside the EU already use the EQF as a referencing framework. See Annex 7.

grow as labour market actors adapt to new procedures and systems and awareness-raising measures build trust and ensure uptake.

All options improve on the baseline by facilitating access to reliable and comparable information on qualifications issued across the MS and allowing labour market actors to benefit from interoperable digital credentials for qualifications displaying a comparable type of information. This would improve employer job matching, including wage and task allocation, and contribute to reducing overqualification[155]. All options are also expected to improve **social inclusion** in relation to the baseline through cost and time savings for EU mobile workers. However, barriers such as country-of-origin bias may persist, limiting these overall effects.

PO1 has the broadest scope and strongest expected impact, covering all qualifications and skills documents. This supports job matching, reduces overqualification, and makes the skills of workers with non-formal or informal learning backgrounds[156] visible and portable. However, it carries significant implementation risks: treating all learning credentials equally regardless of quality assurance standards risks diluting the credibility of higher-standard credentials while burdening flexible alternative training providers with requirements not designed for them in a context of uncertainty in the overall number of providers[157].

PO2 strikes a balance[158] by restricting the scope of digitalisation and information availability to qualifications and micro-credentials included in the NQFs, which guarantee a baseline standard regardless of whether they come from formal institutions, non-formal providers, or skills validation processes. This option covers past qualifications without delay for the purpose of employment in another Member State for the ten most recent years and beyond on request, within a reasonable timeframe and for access to employment in another MS, ensuring the broadest possible reach in comparison to the baseline while maintaining quality assurance

PO34 matches the level of ambition of PO1; however, the absence of identity verification in Europass would leave workers in a weaker position when seeking to prove their qualifications and skills, particularly in cases where an employer questions the authenticity or ownership of a credential.

For **young people**, all options are expected to bring positive outcomes. As young people enter the labour market with limited work experience, qualifications are often the primary signal of skills available to employers. Making available reliable and comparable information on skills and qualifications in the EU as well as providing for interoperable and verifiable digital attestations could therefore support better job matching and reduce the risk of underemployment at the start of a career, while limiting costs of going through qualification assessment procedures which are relatively more difficult to bear for people at the start of their career. Besides, as a non-legislative supporting measure, strengthening validation systems in line with the Council Recommendation is particularly important for individuals who mainly acquired skills through non-formal or informal learning, such as on-the-job experience or employer-provided training. By encouraging that the outputs of such validation procedures are included in NQFs, whether as qualifications or micro-credentials in line with

[155] Expert workshop: ENIC-NARIC recognition of VET qualifications for the purpose of worker mobility.
[156] Expert workshop: Skills not captured in a qualification and the use of technologies; Call for evidence: social partners.
[157] European Commission: Directorate-General for Employment, Social Affairs and Inclusion, *Building trust in micro-credentials for improving employability – Synthesis report from the peer learning activity 28-29 May 2024*, Publications Office of the European Union, 2024, https://data.europa.eu/doi/10.2767/942576
[158] Striking a balance between liberalisation of education and training systems and quality assurance and reliability of credentials is also one of the major points of the EU approach to micro-credentials.

the EU approach, the initiative supports these individuals in making their skills visible and portable across borders.

6.2.1. Impacts on Fundamental Rights

The proposed POs positively impact fundamental rights as enshrined in the Charter of Fundamental Rights of the European Union and support the European Pillar of Social Rights (EPSR) notably by:

- **Enhancing labour mobility and employment rights** (Articles 15 and 45 of the EU Charter) by improving availability of verifiable, secure, digitalised and interoperable information on skills and qualifications, aligning with EPSR Principle 4 (active employment support).
- **Promoting equality and non-discrimination** (Articles 21 and 23 of the EU charter) through providing labour market actors access to reliable and comparable information, supporting EPSR Principles 2 and 3 (gender equality and equal opportunities).

Data protection (Article 8 of the EU Charter) is safeguarded, as digital solutions (e.g. Europass and EUDI Wallet) comply with GDPR/EUDPR, with Options PO1 and PO2applying the highest standards, supporting EPSR Principle 10. No significant risks to personal data are anticipated.

6.3. Environmental impacts

The principal infrastructural development in the broader policy context for **PO1 and PO2**, the EUDI Wallet, will serve as the technical backbone for storing and sharing digital credentials, including qualifications. However, the EUDI Wallet is being developed independently of the SPI under the revised eIDAS Regulation, meaning its environmental footprint cannot be attributed to this initiative. While operators using the EUDI or the Europass Wallet (**PO3**) for digital credentials may generate some environmental impact, stakeholder consultations (including large employer associations) suggest that this shift to digital infrastructure would likely have occurred regardless of the SPI. Thus, no additional environmental burden is expected.

Indirect environmental effects may arise from economic growth driven by improved skills matching, potentially increasing resource use and emissions, though these effects are likely to align with the existing economic structure's environmental profile, without systematically favouring more or less polluting sectors. Conversely, the SPI could support the green transition by enhancing efficiency in skills identification, helping employers, workers, and policymakers address green skills gaps more effectively. Therefore, the SPI could facilitate the deployment of workers with environmental competencies into key sectors, contributing to decarbonisation and benefiting fast-growing green sectors.

Overall, while indirect growth-related pressures may occur, the SPI's role in improving skills alignment for sustainability, coupled with its negligible direct and infrastructural impact, suggests a modest but positive environmental contribution.

7. HOW DO THE OPTIONS COMPARE?

This section evaluates the relative performance of each policy option by assessing their **effectiveness**, their **efficiency** and their **coherence** with broader EU policy objectives, on the basis of criteria that can be found in the respective tables. The **options are scored** on a scale from '-/+' to '---/+++' based on their impact relative to the baseline. A single '-/+' indicates a minor effect, while '--/++' and '---/+++' signal a moderate and significant impact respectively.

'+/-' means that efficiency is slightly better compared to baseline, 0 means that it is the same as in the baseline.

7.1. Effectiveness

On effectiveness, PO2 scores highest for specific objective 1 on reliable and comparable information. (+++). It makes available more standardised and thus better comparable information on content (skills) and level of all European qualifications to labour market actors due to the mandatory updating of NQFs referenced to the EQF, and the requirement to have complete and up-to-date databases on NQF qualifications linked to the Europass platform. The data is reliable because it is based on quality-ensured information (through the NQFs, that must be regularly referenced to the EQF) and comes from official, i.e. trusted, sources.

The expected high uptake of the EUDI Wallet with a focus on the digitalisation of the most recent (-10 years) qualifications which are the ones most relevant for the labour market, allows this PO2 to provide the highest increase of standardised information. The reliability of digitalised NQF qualifications (that are quality-assured) is high under the strong trust framework that is used for this option.

In spite of the broad scope of PO1 (also skills documents), it scores only ++ because fully standardised information (based on EQF and ELM) is only provided for new qualifications. In addition, the skills documents included under PO1 have lower standards in terms of trust framework. This may erode the trust in all digitalised qualifications and skills documents, which may make the wallets (EUDI or Europass wallet respectively) a less trusted source of information.

PO3 is similar to PO1, but the expected lower uptake of the Europass wallet would lead to a moderate increase of available information, despite the broad scope (also skills documents and older qualifications). This is why this option scores lowest (+).

For objective 2 (on interoperable and verifiable digital attestations of qualifications and skills), PO2 scores also best (+++): it ensures full legal interoperability through the legal value of digital attestations even if issued in another MS, full technical interoperability thanks to a common technical standard and full semantic interoperability as it is based on a standardised data model not only for new qualifications, but also for recent qualifications (-10 years).

In addition, the strong identity verification and anti-fraud safeguards under the EUDI Wallet are decisive for its high score.

PO1 scores ++ as it ensures only partial semantic interoperability for older (including recent) qualifications and other skills documents. While it is also based on the EUDI Wallet, a part of the included documents (other skills documents) has a weaker trust framework.

PO3 scores lowest (+) because of, although otherwise similar to PO1, the Europass wallet does not allow to link the identity of the account holder, which weighs on its performance on the second criterion. In addition, its lower uptake also makes it score lower on the verifiability of digital attestations.

Table 19: **Effectiveness of policy options**

	Option	PO1	PO2	PO3
SO1	**Rating**	++	+++	+

	Criterion	Increase in labour market relevant qualifications and skills documents on which standardised information from trusted sources is available.		
SO2	**Rating**	++	+++	+
	Criteria	• Degree to which technical, semantic and legal interoperability is ensured • Degree to which authenticity of the documents and link to identity can be verified		

7.2. Efficiency

Efficiency is evaluated in terms of the benefits of each option relative to its associated costs. As not all benefits can be expressed in monetary terms because of limitations in available data, the efficiency assessment takes into account also non-monetised benefits, such as fairer working conditions for mobile workers, easier cross-border mobility in particular for young people as well as a contribution to improved functioning of the European labour market and competitiveness, the safeguarding of fundamental rights, and spillovers into national labour markets and areas such as further learning as well as simplification.

PO2 is considered the most efficient option, with a score of + due to its ability to deliver extensive benefits in comparison to the costs involved. The monetised costs are lowest while its effectiveness in reaching the policy objectives has the highest score. In particular, PO2 combines the high benefits of a relatively fast and wide expected uptake of the EUDI wallet which influences the cost savings. Beyond the monetised benefits, PO2 has positive social impacts such as contributing to fairer working conditions for mobile workers. It is the option with the most positive effects for young people who benefit from the digitalisation of recent qualifications (-10 years) and who are the most likely to move across borders. With its focus on digitalising NQF qualifications (which are most labour market relevant), it directs the investment to the segment with the highest return, with positive spillovers on national labour markets and the area of further learning. PO2 contributes to simplification as the availability of the Europass platform centralising reliable and comparable information will reduce the need for multiple efforts at Member State level to make available and keep track of information on each other's NQFs. Indirect benefits can also be expected: PO2 contributes positively to the functioning of the internal market and EU competitiveness: it is expected to facilitate cross-border hiring with some effect on skills mismatches and improved labour market allocation. It also safeguards fundamental rights.

PO1 reaches a score of +/- for efficiency. It combines a lower effectiveness in terms of reaching the policy objective with higher costs. The higher amounts are mainly driven by the larger scope that includes the other skills documents – a cost that is mainly placed on private providers of micro-credentials for whom this investment will not pay off as the benefits are spread over different groups. The option has similar non-monetised benefits as PO2, but without the automatic digitalisation of recent qualifications (-10 years), the positive effect on young people is weaker.

PO3 reaches the lowest score (0) as comparable costs will lead to the least effective solution with the lower take-up of the Europass wallet weighing particularly on efficiency. Non-monetised benefits are similar to PO1.

Table 20: **Efficiency of policy options**

Option	PO1	PO2	PO3
Rating	+/-	+	0
Criterion	Cost-savings from easier verifications, better access to reliable and comparable		

	information on qualifications and skills, better interoperability of digital attestations of qualifications across the EU, fairer working conditions for EU mobile workers, enhanced fairness, positive impact on young EU movers, and the safeguarding of fundamental rights; functioning of the EU labour market, competitiveness benefits, simplification; spillovers into national labour markets and the area of further learning; total costs.

7.3. Coherence

The coherence assessment is split between internal coherence, i.e. coherence with the other actions of the Skills Portability Initiative and external coherence, i.e. coherence with the broader policy context.

7.3.1. Internal coherence

PO2 is the policy options which scores highest (+++) in terms of internal coherence with other SPI actions. By establishing common information standards and standards for digital credentials, as well as qualifications databases, the initiative reduces the cost of presenting, verifying, and recognising qualifications under the other SPI actions. In particular, using the EQF as a universal reference framework across all three actions ensures internal coherence and makes qualifications easier to compare, understand, and verify, minimising information asymmetries and fostering greater trust within the EU.

PO2 ensures the availability of interoperable and verifiable digital qualifications, which is crucial to allow for faster and less burdensome cross-border recognition processes under Action 2. The use of the EUDI wallet which provides a link to the identity of the account holder and makes use of the EUDI Wallet overall trust framework creates particularly strong synergies. The expected quick uptake of the EUDI wallet and the digitalisation of recent qualifications (-10 years) without delay (to the extent possible) will create early savings for the Competent Authorities under Action 2 on regulated professions.

PO1 also supports the other actions in similar ways, but the missing digitalisation of recent qualifications (-10 years) will create fewer immediate benefits for Action 2. The score of PO1 for internal coherence is thus ++.

PO3 scores only + because of the shortcomings already outlined under PO1 and the missing link to the identity of the Europass wallet holder, which is crucial for recognition procedures.

7.3.2. External coherence

PO2 is highly coherent (+++) with existing EU legal frameworks and policy objectives, particularly those related to the free movement of workers (including Regulation (EU) No 492/2011 on freedom of movement for workers within the Union) and the functioning of the Single Market. It is consistent with the PQD (Directive 2005/36/EC) and reinforces the EQF Recommendation objective of improving the transparency, comparability and portability of qualifications.

PO2 is also coherent with the EU's broader digitalisation agenda, including the EU Digital Decade and the Single Market Strategy. PO2 aligns well with the General Data Protection Regulation (GDPR) (Regulation (EU) 2016/679) the Interoperable Europe Act (Regulation (EU) 2024/903), the EUDI Wallet and the eIDAS Regulation 910/2014 for all digitally issued qualifications. Adding another set of documents into the EUDI Wallet also benefits the EUDI Wallet users. This is also coherent with the ESSPASS proposal: the use of the EUDI Wallet in

both initiatives gives a single storage place for the documents mobile and cross-border workers need. PO2 also demonstrates high external coherence by combining the EUDI Wallet with the Single Digital Gateway (SDG) Regulation (Regulation 2018/1724) and the Once Only Technical System for qualifications already awarded. The new procedure under the SDG allows citizens to have access to a fully digitalised procedure to request their qualifications.

PO2 uses existing EU tools, including the Europass platform and the Open Data Portal, for the publication of accessible information on qualifications, which is strengthened in their use thanks to improved data provision by MS and a reinforced qualifications comparison tool. The digitalisation of micro-credentials in NQFs is coherent with both the EQF and micro-credentials Council Recommendations and would ensure that the data fields established in those Recommendations are properly used. PO1 achieves the same external coherence score as PO2. The coherence with the micro-credentials Recommendation is even stronger than in PO2 as all skills documents are digitalised under this PO.PO3 aligns also with the EU Digital Decade by digitalising qualifications, it conforms with the GDPR requirements, and like PO1 and PO2 gives legal value to digital credentials. However, it does not align with the EUDI Wallet and therefore does not provide any link to the identity of the account holder and does not benefit from the EUDI Wallet's overall trust framework, established under the eIDAS Regulation. It is also incoherent with the EUDI Wallet, which will be made available by all MS to their citizens, since it will create a parallel system of wallets and trust services. PO3 builds on the Europass infrastructure in line with Decision (EU) 2018/646, ensuring continuity with current practices and growing familiarity for employers and workers alike and coherent with the Europass platform at large as a one-stop-shop for skills and career management. PO3 therefore scores ++ for external coherence. The coherence with the micro-credentials Recommendation is the same as PO1 as all skills documents are digitalised under this PO. PO3 therefore scores ++ for external coherence.

Table 17: Coherence of policy options

	Option	PO1	PO2	PO3
Internal coherence	**Rating**	++	+++	+
	Criterion	Degree to which the policy options align with and support the other SPI actions		
External coherence	**Rating**	+++	+++	++
	Criterion	Degree to which the policy options are aligned with existing EU policy frameworks, without undermining or duplicating other initiatives		

7.4. Overall comparison of Policy Options

Table 18: Comparison of the POs across all assessment criteria relative to the baseline[159]

	PO1	PO2	PO3
Effectiveness	++	+++	+
Efficiency	+/-	+	0
Coherence	+++	+++	++

[159] The following ranking symbols have been used: from '+' (more effective/efficient/coherent than the baseline) to '+++' (much more effective/efficient/coherent than the baseline); from '-' (less effective/efficient/coherent than the baseline) to '---' (much less effective/efficient/coherent than the baseline).

The policy options are also assessed against the principles of proportionality and subsidiarity as required under Article 5 of the Treaty on European Union. PO 2 is the most **proportional** as it limits the scope of qualifications covered by digitalisation to those most relevant for the labour market and therefore striking the best balance between benefits and costs. For young people, since they are more mobile than other age groups (those aged 15-34 years constituted 36% of the entire EU mover population in 2024), future and recent issued qualifications (up to 10 years in the past) would be largely covered.[160] PO1 raises significant proportionality concerns due to its broad scope and the consequent high burden of digitalising all existing NQF qualifications and skills' documents, and all past qualifications on demand, without distinguishing between NQF and non-NQF qualifications, which may go beyond what is necessary. PO3**,** while similarly broad in scope, is considered a bit more proportional than PO1 as it leverages the existing Europass framework.

On **subsidiarity**, all options address an inherently cross-border problem that MS cannot resolve alone and therefore justify EU-level action. Similarly, all options build on an interoperable EU-wide digital infrastructure for qualifications, which cannot be achieved by MS acting individually. EU-level coordination, standardisation and funding support are therefore necessary and create clear added value for cross-border labour mobility.

8. PREFERRED OPTION

The impact assessment resulted in PO2 as the preferred way forward to achieve the specific objectives 1 and 2 in the most effective, efficient and coherent way.

Thanks to the digital qualification attestations issued in the EUDI Wallets and the reinforced comparison tool in Europass, employers and workers will have free and easy access to information on the level and content of qualifications issued in the other MS. The information will be fully **reliable**, as the PO focuses on qualifications included in the MS NQF, which are quality assured and the content of the digital attestations and the information in the comparison tool will be based solely on official administrative data. It will be **comparable** – both digital attestations and the comparison tool will include up to date EQF level references, and the presentation of the information will be standardised. The information will be instantly **verifiable** for new qualifications and facilitated for older ones – both in terms of authenticity of the qualification and its issuer and in terms of the link to the holder's identity. The solution is fully **interoperable** thanks to common legal, technical and semantic standards.

The preferred form of legal act for the PO is a **regulation** as an instrument which provides advantage of establishing a uniform set of rules that are directly applicable across the Union. Being directly applicable and setting minimal requirements without further need of any transposition by MS, regulation will contribute to a quicker unification. It will ensure that the envisaged tools to improve the availability of reliable, comparable and interoperable digitalised information on skills are based on consistent data from the MS and meet the same technical standards and specifications so that they can be trusted as authentic and quality approved. As a directly applicable legal instrument, the regulation will also be easier and to implement.

Setting up a comprehensive and interoperable system of digital attestations of qualification comes at a cost to national administrations and education and training providers. The preferred option keeps those costs to a minimum by firstly, choosing EUDI Wallet as a technical solution where a significant part of the investment has already been decided to make

[160] European Commission (2026) Young EU movers and labour market mismatches - Publications Office of the EU

irrespective of this initiative, and secondly by limiting the scope of the initiative to NQF qualifications where most of the information necessary for the establishment of the required trust framework is already at the disposal of the MS. It also strikes a balance between covering a larger proportion of the workforce thanks to automatic issuance of some historic qualifications and making it practically feasible and cost-effective. Limiting the automatic issuance to the last 10 years means that MS can to a significant degree rely on already existing databases and ensuring that the attestations are provided solely for the purpose of labour mobility and giving the possibility to provide a more limited set of information further addresses potential challenges of digitalising past qualifications.

Overall, the proposed solution will be a significant step forward in how qualifications from other MS can be used in practice in the single market. While not touching on MS competence in organising their education and training systems, the PO builds on policies and tools developed so far and brings them a step forward, towards a fully connected system whereby qualifications obtained in other Member State are easily understood and verified and thus have a signalling value which is closer to national qualifications.

This will have direct benefits for workers and employers, who will save time and money on costly processes of verifying qualifications and comparing them to national standards. The availability of digital attestations will be relevant for workers in regulated and non-regulated professions. When it comes to regulated professions, it is a precondition for the modernised and simplified system of formal recognition put forward in Action 2 of the SPI.

Broader positive effects of the PO are expected, which could not be monetised in a robust manner such as effects on employability or overqualification levels. A significant positive spillover effect is expected on portability of qualifications in national labour markets and in the context of learning mobility, potentially saving time and costs to a much higher number of citizens. In addition, setting common EU standards for digitalisation of qualification at this stage, where national investments are starting but the national systems have not yet been fully established, ensures interoperability by design and prevents potentially higher costs in the future where divergent national approaches would further complicate the understanding of qualifications from other MS for employers, and where eventually a variety of fully fledged national systems would need to be adjusted to be interoperable.

8.1. Summary of cost and benefits for the preferred Policy Option

A breakdown of the estimated costs and benefits of the Preferred Option is provided in **Annex 3**, which presents each impact by stakeholder group (workers, employers and public authorities).

8.2. Application of the ‘one in, one out’ approach

There are no expected administrative costs for citizens and businesses arising from the initiative.

9. HOW WILL ACTUAL IMPACTS BE MONITORED AND EVALUATED?

The Commission would establish a dedicated monitoring framework covering the Operational Objectives set out below and the corresponding output, result and impact indicators. Together, these indicators would support both the monitoring of implementation and the future evaluation of the initiative.

A report on the progress of the initiative would be envisaged five years after the date of entry into application of the legislative act. In addition, an evaluation will be foreseen in line with Better Regulation requirements.
To facilitate monitoring and evaluation, the Specific Objectives are translated into Operational Objectives (OO):

Specific Objective 1: By the end of the transition period, labour market actors have access to reliable and comparable information on skills and qualifications issued in the EU.
Corresponding Operational Objectives:

- OO1: By the end of the transition period, all MS have their NQF databases fully connected to Europass with standardised metadata
- OO2: By the end of the transition period, all MS submit up to date EQF referencing reports to guarantee the Europass comparison tool provides accurate, up-to-date equivalence information.

Specific Objective 2: By the end of the transition period, labour market actors in the EU can benefit from interoperable and verifiable digital attestations of qualifications and skills.
Corresponding Operational Objectives:

- OO3: By the end of the transition period, all MS issue all new qualifications (EQF levels 2–8) digitally via the EUDI Wallet
- OO4: By the end of the transition period, all MS can digitise and issue qualifications from the past 10 years via the EUDI Wallet automatically for cross border employment
- OO5: By the end of the transition period, all MS can digitalise and issue qualifications awarded between the past 10 and 45 years into the EUDI Wallet within 14 days of request (e.g., for professional recognition procedures or for other employment in another MS purposes)
- OO6: By the end of the transition period, digital qualifications issued through the EUDI Wallet can be automatically verified across MS.
- OO7: By the end of the transition period, all MS recognise the legal value EUDI Wallet-issued digital qualifications.

Based on the Operational Objectives, the draft monitoring framework distinguishes between output, result and impact indicators. Output indicators would monitor implementation of the operational objectives, for example the share of MS capable of issuing digital qualifications through the EUDI Wallet, or the share of MS with NQF databases connected to Europass using the agreed metadata standard. Result indicators would capture the immediate effects of the initiative on labour market actors, such as the share of newly awarded qualifications issued as digital credentials, the share of employers reporting easier access to and comparison of qualifications obtained in another Member State, or the share of mobile workers reporting that they can successfully present and use verifiable digital qualifications in another Member State. Impact indicators would assess broader labour market outcomes. As such, they are influenced by a range of external economic, labour-market and policy developments and should not be interpreted as being solely attributable to the initiative. Impact indicators include, among others, transaction costs associated with qualification portability, and employers' reporting that qualification-related barriers discourage them from recruiting candidates holding qualifications obtained in another Member State. Where possible, the framework relies on existing EU data sources and reporting mechanisms. Where suitable data are not currently available, the Commission would first assess whether existing surveys, administrative datasets or monitoring systems could be adapted before considering targeted evaluation studies or other proportionate data collection methods. The detailed draft

monitoring framework, including indicators, data sources, baselines and reporting frequency, is provided in Annex 10.

Annex 1: PROCEDURAL INFORMATION

1. Lead DG, Decide Planning/CWP references

DG Employment, Social Affairs and Inclusion (DG EMPL) is the lead DG.

The Skills Portability Initiative is included in the **Commission Work Programme** (CWP) for 2026[161], and planned for adoption in Q3 as part of the **Fair Labour Mobility Package**.

2. Organisation and timing

The **Call for evidence**[162] providing an overview of the initiative and envisaged POs was published on 5 December 2025 on "Have Your Say"[163] and remained open for feedback until 27 February 2026 (a detailed assessment of the feedback received is provided in Annex 2).

The **Impact Assessment report** (IA report) is based on a number of studies and existing literature, reports, surveys and background research. A study from an external contractor was launched in October 2025 to inform the IA report.

In addition, **extensive targeted consultations** were conducted in the context of this initiative between October 2025 and April 2026.

Previous evaluations were also taken into account in the preparation of the IA report, in particular the European Qualifications Framework (EQF)[164] and Europass[165] evaluations published in 2024.

Inter-Service Coordination Group

The Inter-service Coordination Group (ISCG) on the Union of Skills was used by the Secretariat-General to assist in the preparation of the SPI. For the external studies supporting the IAs for the three SPI actions, specific steering groups were set up.

The representatives of the following Directorates-General participated in the ISCG work: BUDG, CNECT, COMM, EAC, ECFIN, EEAS, EMPL, ESTAT, GROW, JUST, JRC, INTPA, MOVE, NEAR, REFORM, REGIO, RTD, SANTE, TRADE, SG and the Legal Service.

One Cabinet/Services meeting was held in 2026 during the preparation stage of this IA. The representatives from the following Cabinets and Directorates-General of the Commission took part in the Cabinet/Services meetings: CAB-SÉJOURNÉ, GROW. DG EMPL has considered the comments made by Cabinets and DGs regarding the Impact Assessment.

The ISCG met 3 times to discuss the SPI, namely on 16 September 2025 (meeting on the overall Union of Skills with a dedicated point on the SPI), on 26 March 2026 (to discuss preliminary elements of the three SPI IAs) and on 27 May (to discuss the three IAs before their submission to the Regulatory Scrutiny Board).

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[161] Commission work programme 2026 - European Commission

[162] Skills portability, action 1 – facilitating worker mobility across the EU through skills transparency and digitalisation

[163] Fair labour mobility package: Skills portability 1: digitalised cross-border portability of qualifications and skills

[164] EUR-Lex - 52024SC0071 - EN - EUR-Lex

[165] EUR-Lex - 52024DC0135 - EN - EUR-Lex

The steering group for the external study supporting the IA on SPI Action 1 met on 13 October 2025 for the kick-off meeting, on 20 November 2025 to discuss the draft Inception report and on 19 March 2026 to discuss the draft Interim report. The draft Final report was discussed by written procedure with a deadline for comments by 3 June 2026.

Bilateral meetings with other Commission services

DG EMPL has held a number of bilateral meetings with several Commission services including DG REGIO, CNECT, GROW, ENER, LS, DIGIT. .

External meetings and consultations

The initiative touches upon different policy areas including, labour moblity, employment and recognition of qualifications related aspects. Therefore, extensive consultations were conducted with a wide range of stakeholders and experts from different backgrounds. Meetings and ad-hoc consultations with EU institutions and agencies, international organisations, MS, expert groups, high-level groups, think tanks, and civil society were organised. A full overview of the consultations conducted is available in Annex 2.

3. Consultation of the Regulatory Scrutiny Board

On 17 June 2026, DG EMPL submitted the draft IA to the Regulatory Scrutiny Board, which has examined the draft IA on 15 July 2026. The RSB delivered a negative opinion following the meeting. The revisions made to address the RSB opinion are summarised in the table below.

On 24 August 2026, the RSB delivered a positive opinion with reservations. The revisions made to address these reservations are also summarised in the table below.

Table: How RSB comments have been addressed

1st RSB Opinion (copy of the RSB comments from the opinion)	**How and where the comments have been addressed**
The Board notes the additional information provided. However, the Board gives a negative opinion because the report contains the following serious shortcomings that the lead Service must address: (1) The report does not demonstrate the proportionality of preferred option. (2) The report does not sufficiently demonstrate the problems to be tackled, their root causes and their magnitude, building on appropriate evidence-base. The intervention logic is not substantiated. The report does not establish that an obligation	The report has been substantially revised to address the Board's comments. As at this stage the evidence is not solid enough to justify a specific action under objective A which aimed at addressing specific barriers in non-regulated professions, the options under former objective A (including the obligation to refer to EQF levels in labour market contexts and the legal presumption of equivalence of qualifications of the same level), has been removed. This allows the report to focus on a more proportionate and evidence-based intervention based on the former objective B options which are expected to also gradually address the issues identified for non-regulated professions. The effect will be evaluated after some years of implementation, and, should it reveal persistent deficiencies in this respect, could

to refer to EQF levels in labour market contexts can effectively support the free movement of workers in the EU. (3) The report does not sufficiently describe the dynamic baseline, including existing digital tools and projects under development, and their expected effects. The definition of some policy measures is not sufficiently clear for the purposes of assessing their impacts. (4) The coherence of this initiative with the other SPI actions as well as with other legislation and initiatives in the field of labour, skills and qualification is not sufficiently assessed.	be addressed making use of a review clause of the legal instrument. The problem definition and intervention logic have been reinforced by expanding the evidence base, integrating the findings of the EQF and Europass evaluations, strengthening the analysis of labour market barriers and better substantiating the role of qualification portability in supporting worker mobility. The dynamic baseline has been expanded to better reflect existing EU tools, ongoing digital initiatives and technological developments, while the description of the policy measures has been made more operational and implementation oriented. Finally, the report provides a stronger assessment of coherence with the other actions of the Skills Portability Initiative and with relevant EU initiatives in the fields of skills, qualifications, digital identity and interoperability, demonstrating more clearly how the preferred option builds on existing EU frameworks and projects (sections 1.2 and 7.3).
What to improve: (1) Based on an improved evidence-base and building on recent evaluations, including on the EQF and Europass, the problem definition should demonstrate the direct contribution of obstacles related to the skills and qualification portability to EU workers' mobility and the scale of the problems that the initiative aims to address. It should demonstrate to what extent the lack of understanding of non-national qualifications plays a role in the workers' and employers' decisions and to what extent fraud is pervasive and hence constitutes an issue in relation to proof of qualification in the labour market context.	The revised problem definition (2.1) strengthens the evidence base on how obstacles to skills and qualification portability directly hinder EU workers' mobility and labour market efficiency. It now explicitly frames qualifications as signals of productivity, showing how limited understanding of non-national qualifications creates information asymmetries that affect recruitment decisions and can disadvantage mobile workers. This is supported by stakeholder evidence, including SME Panel results showing that unfamiliarity with foreign education systems, difficulties verifying qualifications and language barriers are among the main obstacles, as well as evidence that comparability statements are widely used in practice even where they are not legally required. The revised analysis also includes the findings of the EQF and Europass evaluations and better demonstrates the scale of the problem by highlighting the relative lower signalling value of qualifications obtained in other MS (section 2.1) and the risk that uncoordinated national digitalisation could further deepen fragmentation and uncertainty. In addition, it clarifies that verification difficulties linked to paper-based credentials and limited interoperability can also create opportunities for fraud, thereby undermining trust in non-national qualifications.
(2) The report should consider how the findings of the EQF and	The report contains more detail on how the proposed measures build on the outcomes of the

Europass evaluations affect the design of the measures and the potential impacts. In particular, the report should assess to what extent the EQF can be considered an effective tool for facilitating recruitments, considering that the EQF evaluation found that effects on employability, mobility and social integration of workers and learners were less tangible. The relevant evidence should be reflected in the intervention logic.	EQF and Europass evaluations. The outcomes of the evaluations have been set out in more detail in the report. The report also addresses more specifically the role of the EQF for the labour market, including recruitments. The EQF and the Europass evaluation has been taken forward and is reflected in the problem definition. These different points are now reflected in the design of the policy options.
(3) The report should improve the description of the dynamic baseline, explaining better the current situation, practices in MS related to the use of qualifications including the practise related to qualifications in job postings. For example, to the extent possible, the report should provide an estimation of the share of job advertisements referring to qualifications, which would be affected by the obligation to refer to EQF levels, in large companies and SMEs. The report should describe relevant existing initiatives, tools and projects to support labour mobility (e.g. EQF, NQF, Europass and its certificate supplement, ESCO), including IT ones (DC4EU, EUDI Wallet etc.). It should also provide a clear overview of the situation in MS regarding both the various types of different organisations and practices for issuing qualifications and the different levels of readiness of issuers for issuing qualifications digitally, distinguishing the qualifications issued in the past and the qualifications to be issued in the future. It should also provide a deeper analysis on how AI-enabled solutions could address the identified problems and/or their drivers.	The dynamic baseline (section 5.1) has been adapted to the new scope of the initiative and substantially strengthened to provide a more granular, evidence-based and forward-looking account of the current situation and its likely evolution in the absence of EU action. First, the revised baseline now better links quantitative and qualitative evidence to actual Member State practices, including the use of qualifications in job postings and recruitment. The report explains more clearly how limited use of EU transparency tools translates into practical barriers for employers, especially SMEs. For example, it highlights that only 14% of SMEs recruited from other MS in 2023, compared with 33% of large firms, and that nearly half of SMEs report needing better tools to understand non-national qualifications. This is explicitly connected to the still fragmented uptake of instruments such as EQF and Europass. The baseline also shows that, without further EU action, employers are likely to continue relying on nationally familiar qualifications, with cross-border recruitment remaining costlier and slower, as reflected in persistent recruitment costs and unchanged assessment times. Second, the report now contains a fuller analysis of how digitalisation and AI affect the problem and are likely to shape the future baseline (sections 2.1 and 5.1). It integrates evidence from the 2026 Council of Europe survey, which shows that 73% of institutions report no use of AI in qualification recognition, as well as lessons from the DC4EU pilots. These pilots confirm the potential efficiency gains from digital credentials, while also illustrating the risk of fragmentation if MS proceed with different technical solutions in the absence of common standards. Third, the revised baseline provides a clearer

	picture of Member State readiness, distinguishing between the treatment of existing qualifications and the future issuance of digital qualifications. An overview of implementation patterns, governance models, infrastructure and technical readiness in MS for issuing qualifications digitally is now included in annex 8(5). Based on this information, a technical readiness index has been created and used for cost calculations (section 6, annex 4) where relevant. Finally, the baseline now situates these developments in relation to relevant existing EU initiatives (which are described in more detail across the report, e.g. in sections 2.1, 5.1, 5.2, annex 7, annex 14E), while clarifying their limits for the specific problem at stake. It explains that these frameworks are important enablers, but do not by themselves remove cross-border obstacles linked to qualification format, comparability and verification. The revised baseline therefore better demonstrates that, in the absence of EU intervention, ongoing but uncoordinated digitalisation is likely to deepen rather than reduce fragmentation.
(4) The report should explain the content of the options more precisely and describe how the measures would work in practice. It should also clearly demonstrate the expected outputs, outcomes and impacts of the proposed measures, considering the evidence base. It should clarify whether the proposal will include supporting non-legislative measures.	The revised IA presents the policy options in a more precise, comparable, and implementation-oriented way, making it easier to understand both the differences between the options and the practical consequences of choosing one over another (section 5.2). The options are now organised around three concrete design variables: the digital tool used (EUDI Wallet or Europass Wallet), the scope of qualifications covered (including EQF level and type of documents digitalised), and how far back the digitalisation of qualifications goes and how this is organised. The revised framing also makes the intervention logic more transparent by separating automatic issuance for newly awarded qualifications from on-demand digitalisation of existing ones, which helps clarify what each option would actually require in practice. The revised IA also improves significantly the way it explains how the options would operate. Measures that were previously only implicit are now set out as part of a more explicit implementation pathway. The IA specifies elements such as transition periods, pilot phases, and the supporting role of existing EU instruments, including the Single Digital Gateway and the Once-Only Technical System, in facilitating access to older credentials. It also explains more clearly what

	MS and other actors would need to do under each option. Under PO1 and PO2, for instance, MS would need to establish databases of awarding bodies so that qualifications can be issued automatically through the EUDI Wallet. Under PO3, by contrast, the existing Europass infrastructure is used as the main vehicle, but this would require further adaptation to function at larger scale with the same trust framework, in order to be truly comparable. This operational detail makes the options more concrete and shows more clearly how they relate to current frameworks such as eIDAS and ESCO. Likewise, prerequisites such as the inclusion of EQF levels in newly issued qualifications and the development of interoperable NQF databases are now brought into the main narrative. Moreover, the IA draws a stronger connection between the design of each option and its expected effects. Supporting non-legislative measures are clearly mentioned in the description of the option (section 5.2).
(5) The costs and benefits analysis should be revised. The main report should provide a transparent overview of the assumptions that drive the results, their rationale and corroborating evidence, their limitations and uncertainties. It should be clear and consistent throughout the report and its annexes as to whether cost and savings allocated to employers include public and private entities. The report should consider recurrent costs affecting employers. The report should be clear on how many entities would be impacted under each option over the assessment period and to what extent. The report should provide robust analysis of costs for issuers, allowing to establish the costs to different types of issuers. Any efficiency gains estimate for enterprises as well the increased productivity due to reduced mismatch and higher mobility should be substantiated.	The cost and benefits analysis (section 6) has been revised. In particular, the indirect benefits, that included possible spillover effects and were largely based on assumptions (such as higher productivity due to reduced skills mismatch or higher mobility), have been taken out or only described qualitatively. Only the most certain and direct benefits, based on very conservative calculations, have been monetised. Where assumptions had to be made for costs and benefits, their sources as well as their limitations and uncertainties are transparently acknowledged. In the remaining options (i.e. after removing the options under former objective A), employers do not bear any direct costs, nor do they hold any implementation obligations. The report does not make any difference between public and private entities as employers: for instance, for a conservative calculation of the cost savings for (all types of) employers it takes as a starting point the share of vacancies that mention qualifications (based on the OVATE database that covers private and public vacancies) and applies this share to the annual flow of mobile workers, which is kept stable over the whole timeframe. The cost calculation for different types of issuers is based on a newly added clustering of MS (centralised vs. decentralised MS for issuance of

	education credentials): a table with the type and number of issuers per MS is included in annex 8(5)).
(6) The report should better justify the proportionality of the preferred option which includes a legal presumption of equivalence; mandating the systematic inclusion of the EQF levels in labour market situations and requiring the digitalisation of all newly issued qualifications and those issued in the past 10 years that are part of MS NQF. The report should assess a sufficient range of options to allow for demonstrating proportionality.	The former Objective A addressing specific barriers in non-regulated professions and its related policy options, including on the legal presumption of equivalence of EQF levels has been removed (see above). The new preferred option PO2 has been adjusted to ensure proportionality: while newly issued qualifications would be digitalised by default, those issued in the past 10 years would be digitalised only on demand and for the purpose of employment in another Member State. In addition, for older qualifications, the information needs can be adapted so that MS can provide the necessary information, with many fields being optional. A comparison of costs and benefits has demonstrated that digitalising qualifications dating back to less than 10 years is worth the investment: the higher cost at the start is outweighed by the higher savings for issuers of qualifications later on. A sensitivity analysis in included in annex 4.2.
(7) The analysis of the interplay between this action and the other actions of the Skills Portability Initiative, in particular Action 2 should be reinforced, including as regards digital aspects. The report should also further develop the analysis of the coherence of this initiative with on-going projects and initiatives both in the field of the Skills and qualifications on the EU labour market or in relation to the EU digital strategy (e.IDAS.2.0, Interoperability regulation).	The report has been strengthened to better explain the interplay between Action 1 and the other actions of the Skills Portability Initiative, in particular Action 2. It now clarifies how Action 1 provides the trusted, interoperable digital qualifications and qualification information that underpin the digital processes envisaged under Action 2 for the recognition of qualifications for access to regulated professions. In addition, the analysis of coherence has been reinforced by explaining more clearly how the initiative builds on and complements ongoing EU digital initiatives and projects (see in particular sections 1, 7.3 and annex 13). In particular, additional references have been included on the contribution of the DC4EU project in shaping the preferred option, as well as on the alignment of the initiative with the EU digital strategy, demonstrating that the proposed measures have been designed according to an interoperability-by-design approach.
(8) The report should present better how the stakeholders views have informed the design and the analysis of the measures.	To better present how stakeholder views inform the analysis and design of measures, the IA now shows in a more coherent way all the evidence gathered from stakeholders: for example, the SME Panel findings on comparability

	statements and the digital-credentials survey data appeared only in the problem-drivers section, several pages after the corresponding problem statement. This evidence has been relocated to Section 2.1, alongside the claim it substantiates. Also, the section on policy options includes an expanded presentation of stakeholder positions, taken into account in the design of the options. Taken together, the revision makes stakeholder evidence complete where it was missing and correctly positioned where it was present but disconnected from the argument it supports.
2nd RSB Opinion (copy of the RSB comments from the opinion)	**How and where the comments have been addressed**
The Board notes the improvements to the quality of the report. However, the report still contains significant shortcomings. The Board gives a positive opinion with reservations because it expects the DG to rectify the following aspects: (1) The preferred option is not clearly defined regarding the 'automatic issuance on demand for the purpose of the employment in another MS' of qualifications issued over the last ten years. (2) The analysis of costs and cost savings is not clear, including regarding the baseline as well as in relation to the digitalisation of qualifications issued in past ten years under the preferred option. The report does not sufficiently explain some of the key assumptions and the resulting uncertainties.	The Policy Option 2 has been revised to include more details regarding the recent qualifications (-10 years), including the approach towards automatic issuance (section 5.2, p.37). Annex 11 (sections 11.4 and 11.5) has been updated to reflect the approach of flexibility for older qualifications and recent qualifications (-10 years) regarding the description of the data fields. The baseline (section 5.1, pp 27-32) and impact assessment (section 6, pp 43-6370) chapters have been systematically reviewed, including in relation to the digitalisation of qualifications in the past ten years under the preferred option. They include also more detailed explanations of key assumptions and further discussion of the resulting uncertainties.
What to improve: (1) Based on the Europass and EQF evaluations, the report should provide more information on the use of existing tools and systems (Europass, ESCO) across MS and the underlying reasons for the diverse take up. The rationale for leaving out upper secondary schools should be	The revised report now includes an explicit reference to the voluntary nature of updating the EQF referencing and refers to the provision in the EQF recommendation that mentions the due regard to the national context. The EQF and Europass evaluations do not contain further information on the underlying reasons for diverse take up. Both for updates of EQF referencing and for the Europass the points of prioritisation and available resources

substantiated reflecting the evidence related to the practices of labour market actors in different MS. The report should explain what share of qualifications in the scope, i.e. EQF 2 to 8, will not be covered by the initiative and it should analyse related consequences.	in a national context have been referred to (section 2.3, p 19). Regarding upper secondary schools, they actually are included in the policy option. We changed the wording to explain upper secondary schools (general programme only) are excluded from the calculation under the assumption that they already have a way of sharing grade results electronically with the awarding body, but the number of issuers for secondary school qualifications issuers are accounted for (section 5.1.1, pp 35-36). All qualifications at EQF levels 2-8 are within the scope of the initiative.
(2) The report should more precisely describe the baseline and the main elements of the preferred option, specifically regarding the digitalisation of qualifications issued in the past ten years as well as the trust framework. It should be clear and granular enough on which elements (including IT systems, registries, and data needed for records of individuals) are part of the baseline and which ones are new mandatory elements introduced by the proposed initiative, notably for MS and for issuers. The report should be clearer on existing gaps or delays in relation to the implementation by MS of elements relating to other initiatives and belonging to the baseline, which are nonetheless critical to the success of this initiative. The impact of the preferred option on all affected issuers in national systems should be better analysed including the related costs. The report should provide a clearer analysis of the distribution of the costs between the private sector and public administrations as well as the differences between MS.	In the baseline some elements have been added regarding the availability of databases and the data needed for individual records (section 5.1, p 36). A more detailed explanation on the trust framework has been included in the description of the options (section 5.2., pp 45-46). More details are provided in the description of PO2 when it comes to the new mandatory elements (section 5.2, pp 42-43). The EUDI Wallet is the initiative that will be critical to the success of the SPI. A transparent explanation of the conservative assumptions underlying the wallets, along with a discussion of how these could affect the initiative's impacts, is now included in Section 5.2. (p 38). All the costs of this initiative fall on public administrations (including education and training providers, awarding bodies and issuers of qualifications), which establish a framework for the digitalisation of qualifications and information on qualifications for the benefit of labour market actors. The private sector does not need to incur any costs as the SPI does not create obligations for employers (public or private). For further clarity, an explanation of the costs of the wallet for citizens and relying parties (the public and private entities that wish to request or verify credentials from a citizen's wallet) is now added to the baseline (Section 5.1., p 29). Besides, a table with the ratios applied per Member State for the different levels of digital readiness has been included in the report (5.1.1, p 34). In the cost calculations for MS to provide an issuing infrastructure (6.1.1.2, p 55), it is made explicit that the calculations consider the different number of

	institutions per MS as presented in the baseline, and reference is made to Annex 4.1 for further information.
(3) The estimates of key parameters used for the calculation of costs and cost-savings should be substantiated with appropriate evidence, in particular related to the digitalisation of past qualifications to allow for an automatic issuance and the marginal costs of manual and automatic issuance under the different options. The choice of parameters for the cost savings quantification tables in Annex 4, in particular for how the 10-year backlog was incorporated in this calculation, should be better explained and reflected in the main report to the extent that it has an impact on the cost and cost saving estimates. The report should be clear which samples used to derive input parameters are representative. For example, the extrapolation used to quantify the costs for including micro-credentials under PO1 and PO3, based on a survey of 69 issuers (to arrive at a total number of 45,000 providers), seems to be based on a non-representative sample. The report should discuss the uncertainties related to the input parameters and their impact on the calculations.	The costs for the Commission were revised after further analysis internally on the costs of the qualifications comparison tool (increased to EUR 300,000 one-off and including maintenance costs), the one-off and maintenance costs of the tool to connect databases and the reference verifier application (decreased estimates) (section 6.1.1.1, p.52 and 6.1.3, p 65; Annex 3, section 3.2; Annex 4; Annex 13). Once qualifications are included in the national registry of qualifications, they become part of a trust framework that enables both the automatic issuance of a digital attestation and the automatic verification of a digital attestation within that trust framework. This is what allows the calculations to assume minimal marginal unit costs for the issuance and verification of these digital attestations (set at €3.5 and €3 respectively per attestation). This explanation has been included in Section 6.1.1.2, and the footnote explaining the rationale for the 10-year cut-off has been incorporated into the main text (p. 53). Also, the sensitivity analysis for the 10 years backlog that was part of Annex 4 has been included in the main text (p 54). The assumption of 45,000 issuers of non-formal providers of micro-credentials it is not based on a survey. The way to arrive to this number was explained in "Annex 4.1.1. Assumptions on the number of non-NQF micro-credentials providers". To address this comment, we have added a point in the baseline on "Number of non-NQF micro-credentials providers", also addressing the uncertainty around the numbers (section 5.1, p 37).
(4) The coherence of this initiative with existing legislation and/or voluntary initiatives, in particular in the field of digitalisation, should be further developed, with a view to clarifying what this initiative will add to elements which are already underway under those other initiatives.	The description of the internal coherence was revised to have clearer language (section 7.3.1, pp 72-73). The description of the external coherence was expanded to cover other relevant initiatives: the Interoperable Europe Act, ESSPASS, and the micro-credentials Recommendation. This section was also reorganised to provide the information in a more logical order, focussing on coherence with the labour mobility elements, digitalisation initiatives, and the existing Council Recommendations (section

	7.3.2, pp 73-74).
(5) The monitoring and reporting framework should provide more information on how data would be collected, in particular for monitoring the impact indicators.	The description of the monitoring framework was revised to provide clearer and more detailed information on the data collection methods for the impact indicators. In particular, a table that specifies, for each impact indicator, the data source, the baseline, and the frequency of collection/reporting was added in Annex 10. This makes the methodology more transparent and clarifies how the indicators will be monitored over time.

4. Evidence, sources and quality

An external contractor (consortium led by Ecorys) assisted DG EMPL in conducting a study to support the work on the IA report. The call for tenders for the study was launched in June 2025. Seven bids were evaluated in August-September 2025, leading to the award decision in September 2025. The kick-off meeting for the study took place on 13 October 2025 and the the draft final report was submitted on 30 April 2026. The study supporting the Impact Assessment used a comprehensive, mixed-methods evidence base combining primary and secondary data sources. It captured perspectives from all MS and key stakeholder groups identified in the consultation strategy, as well as both qualitative and quantitative evidence, allowing for robust triangulation across sources. The evidence base included:

- Relevant literature and datasets, including academic research, grey literature, policy papers, and legal sources;
- 785 responses to the public consultation and 235 responses to the call for evidence, including 126 position papers;
- 159 responses to a survey of SMEs;
- 94 interviews, covering 140 stakeholders;
- 8 focus groups, including 88 total participants;
- 4 expert workshops, including 41 total participants;
- 574 responses to a survey of issuers of qualifications;
- Additional consultation sources, including 8 expert meetings hosted by the Commission, 39 position papers, 16 responses to a survey of ENIC-NARIC Centres, and 21 responses to a questionnaire sent to EQF National Contact Points.

Quality assurance measures were applied throughout all stages of the study to ensure the robustness and reliability of the evidence incorporated. Broad stakeholder coverage was ensured during the consultation activities to ensure all relevant perspectives were considered, and all findings were systematically triangulated across multiple data sources to corroborate key study conclusions. Analytical and reporting outputs were subject to thorough internal review by the study team to ensure consistency, accuracy, and a strong evidence base throughout.

Overview progress of the study to support the IA	
Meeting/Deliverable	**Proposed date/deadline**
Call for Tender	25 June 2025

Meeting of the Evaluation Committee on the bids for the study	14 August 2025
Award decision and contract signature	Contract signature : 05 October 2025
Kick-off meeting	13 October 2025
Inception report	10 November 2025
Inception report meeting	20 November 2025
Inception report for acceptance	17 December 2025
Interim report for review	16 March 2026
Interim report meeting	19 March 2026
Interim report for acceptance	02 April 2026
Draft final report for the first review cycle	30 April 2026
Final report for the review for the second review cycle	22 May 2026
Contract end date	04 January 2027

Annex 2: STAKEHOLDER CONSULTATION (SYNOPSIS REPORT)

This annex summarises the stakeholder consultation activities undertaken to inform the IA of the Skills Portability Initiative (SPI), including the strategy adopted and results.

1. Consultation strategy

A comprehensive consultation strategy was designed to gather a broad and representative evidence base on the portability of skills and qualifications across EU countries. The evidence collected through these activities supported the problem definition and enabled the assessment of the feasibility, suitability and potential impacts of selected policy measures[166]. The consultation activities conducted are outlined in the table below.

Stakeholder perspectives make up a significant share of the study's evidence base, so targeted measures were integrated from the outset to mitigate any potential biases or limitations. Firstly, breadth and balance of stakeholder coverage were ensured through a broad range of consultation activities, including interviews, focus groups, expert workshops, surveys, Commission-led expert meetings, a public consultation and a call for evidence. Each activity targeted distinct audiences, complementing EU- and policy-level insights with operational perspectives from stakeholders that would be directly affected by a Skills Portability Initiative. These activities collectively covered all EU MS and key stakeholder groups identified in the consultation strategy, ensuring a balanced coverage of perspectives. Additionally, data collection instruments were designed to accommodate varying levels of expertise through a mix of detailed and general questions, and respondents were assured of anonymity to reduce social desirability bias. Lastly, stakeholder views were systematically triangulated against other consultation activities, quantitative data, and reviewed literature to ensure conclusions were drawn from representative, rather than individual perspectives. Where viewpoints were representative of a specific stakeholder group, but not broadly shared, this was clearly indicated in the text.

Overview of consultation strategy		
Instrument	**Description**	**Participation**
Public consultation	The public consultation was hosted on the Commission's *Have Your Say* portal and gathered targeted feedback from professionals and employers on the portability of skills and qualifications within the EU. It focused on the current state of play, challenges and gaps, and the suitability of potential policy measures, particularly those involving digital credentials.	785 respondents
Call for evidence	The call for evidence ran in parallel with the public consultation, and enabled stakeholders to submit structured views and position papers on the problem definition, EU added value and possible policy	235 responses; 126 position papers[167]

[166] The consultation activities were conducted prior to the final policy options being defined, so they instead explored likely policy measures.

[167] Detailed statistics are available on the webpage of the Call for evidence on the European Commission website: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/15892-Skills-portability-action-1-facilitating-worker-mobility-across-the-EU-through-skills-transparency-and-digitalisation/feedback_en?p_id=21535.

	directions.	
Targeted interviews	Targeted, semi-structured interviews provided an in-depth qualitative basis for the analysis, and focused on capturing the operational realities of recognition, validation, accreditation and recruitment processes.	94 interviews, covering 140 stakeholders
Survey of qualification issuers	The survey of qualification issuers collected evidence from organisations responsible for issuing, awarding, validating or overseeing qualifications and learning credentials. It examined their level of digitalisation, alignment with EU-level digital policies, and their digital and portability-related challenges.	574 respondents
Focus groups	The focus groups brought together specific stakeholder groups, including digital actors, youth stakeholders, employers, workers, social partners, cross-border stakeholders, qualification issuers and employment services, and facilitated structured peer discussion on identified problems and proposed measures.	8 focus groups (88 participants in total)
Expert workshops	The expert workshops gathered technical and policy expertise on selected themes including hidden skills, recognition by ENIC-NARIC and other bodies, interoperability and infrastructure, and the matching of skills to job requirements by public employment services.	4 workshops (41 participants in total)
SME Panel Survey	The SME panel survey captured the specific experiences and views of small and medium-sized enterprises engaged in cross-border recruitment, and collected their understandings of the costs, administrative burden and expected benefits associated with EU-level action.	159 responses
Additional consultation activities	In addition to the consultation activities delivered under this study, the analysis incorporated input and perspectives shared via **8** European Commission expert meetings[168], **39** position papers received via other consultation activities, **16** responses to a survey delivered to ENIC-NARIC Centres on qualification comparability practices, and **21** responses to a questionnaire disseminated to EQF National Contact Points on national qualification legal frameworks.	

The consultation strategy targeted a range of stakeholder groups, reflecting the cross-cutting nature of skills portability, with most stakeholder groups consulted via more than one activity (outlined in the table below).

[168] EY Youth Stakeholders' group (6 November 2025), ESCO (14 January 2026), Cross-border regions stakeholders (16 January 2026), PES Network (20 January 2026), Social partner hearing (23 January 2026), EURES National Coordination Offices (27 January 2026), ENIC-NARIC (28 January 2026), and ACVT-DGVT (29 January 2026).

Overview of stakeholders consulted through each activity						
Stakeholder type	**Public consultation and call for evidence**	**Targeted interviews**	**Survey of qualification issuers**	**Focus groups**	**Expert workshops**	**SME panel**
EU-level policymakers and coordination bodies[169]					x	
National level authorities /bodies[170]	x	x	X	x	x	
EU and national social partners and civil society organisations	x	x		x	x	
Workers and jobseekers	x			x		
Employers	x			x		
SMEs	x			x		x
Academics and researchers	x				x	
EU citizens	x					

2. Results of the consultation strategy

2.1. Public consultation

The consultation was open for 12 weeks, from 5 December 2025 to 27 February 2026, and was hosted on the Have Your Say portal in all official EU languages. The questionnaire, which comprised both closed and open-ended questions, was disseminated broadly to European Commission networks and stakeholders.

The questionnaire received a total of 785 responses. Individuals made up 61% of respondents (n=470), with the majority (n=336) being EU citizens. Amongst the 39% (n=306) of organisations responding, 10% (n=81) were public authorities, 6% (n=44) were academic or research institutions, 5% (n=43) were NGOs, 5% (n=41) were business associations, and 4% (n=29) were businesses. The most represented sectors were the public sector (24%; n=191), health (10%; n=75), and digital (10; n=75).

[169] Including ENIC-NARIC Network, EURES coordination office, representatives from European Commission expert groups and skills initiatives, applicants under the b-solutions initiative, and coordinators of advanced digital skills projects under the Digital Europe programme.

[170] Including ministries of labour / employment, ministries of education/skills, National Qualifications Authorities, Recognition agencies, public employment services (PES), EURES advisers, private employment services, Awarding bodies of qualifications or credentials, validation bodies, Quality assurance and accreditation bodies, Cross-border regional authorities, and Chambers of commerce, industry, and skilled crafts.

2.1.1. Problem definition

The most significant obstacles to skills portability cited by respondents were **lengthy, complex and costly recognition procedures** for regulated professions (67%, n=524) and **limited employer understanding and trust in non-national qualifications** (59%, n=462). Other challenges included:

- **Uneven usage of EU tools**: Awareness of EU transparency and recognition tools was uneven across the respondent base. The Europass Framework and EQF were each familiar to 59% (n=462) of respondents, ECTS and ESCO to 34% (n=267 and n=263, respectively), the EU Digital Identity Wallet to 24% (n=187), and the ELM to 13% (n=100). Across categories, respondents identified **limited usability and insufficient coherence of existing EU instruments** as the principal issues (rather than their absence).
- **Underutilisation of skills validation**: Only 9% (n=44) of individuals had successfully validated their skills in an EU country, although 32% (n=152) intended to do so.
- **Lengthy recognition procedures**: The challenges most frequently reported by employers included process duration (60%, n=15) and communication with authorities (52%, n=13). Recognition was generally pursued only where legally required, usually for regulated professions (85% of those requiring recognition) or as part of due diligence (58%).

2.1.2. Policy Options

Stakeholders expressed strong support for EU-level action. At least 90% of respondents rated all proposed objectives as areas where EU action is at least somewhat necessary. The highest priority objectives identified were:

- Ensuring that qualifications are transparent and uniformly understood across the EU (94%, n=741).
- Providing a common EU skills validation certificate (93%, n=729).
- Simplifying and modernising administrative recognition procedures (92%, n=721).

A large majority of respondents indicated they would be very or somewhat likely to use or accept EU-wide digital credentials (90%, n=714). The most frequently raised concerns about EU-level digital credentials were related to technical complexity or compatibility (59%, n=460), data privacy and security (52%, n=405), lack of legal validity across countries (51%, n=404), and potential exclusion of users with limited digital skills or internet access (51%, n=397). Respondents highlighted the importance of robust governance, inclusive design, targeted support and paper-based or hybrid alternatives to mitigate digital exclusion.

While support for EU-level action was very broad, a minority of respondents voiced concerns relating to over-reliance on digital tools, possible weakening of quality assurance for non-formal learning, and the risk of devaluing established national qualifications. Public authorities and education-related respondents generally placed greater emphasis on preserving national competences in education and on human oversight in digital infrastructure, while business and individual respondents emphasised speed, simplification and cross-border interoperability.

2.2. Call for evidence

The call for evidence ran in parallel with the public consultation (5 December 2025 to 27 February 2026). A total of 235 responses were received (excluding 22 duplicates), accompanied by 126 position papers.

Most respondents reported that the existing framework of EU-level instruments has **not yet translated into an effective system for cross-border skills portability**. For non-regulated professions, respondents identified the absence of agreed legal frameworks for recognition, the largely voluntary nature of EU instruments, fragmentation across digital credential providers, low implementation of and limited trust in micro-credentials, and employer uncertainty (especially among SMEs) as main challenges. Key challenges identified for regulated professions included **procedural complexity and slow digitalisation**, particularly for shortage professions such as healthcare and education.

Most contributions mentioned the need for EU-level coordination, although a minority (largely representing professional bodies) argued that decisions about recognition and comparability of qualifications should remain primarily at Member State level. Regarding legislative measures**,** some considered new legislation (such as common procedural rules, mandatory timelines and digital requirements) necessary, while others viewed new legislation as premature and warned against lowering professional standards.

Overall, there was broad consensus among respondents that investments in digital credentials, interoperability and verification systems would generate significant benefits, provided they preserve human oversight, provide non-digital alternatives, and operate under public rather than solely commercial governance. Some respondents also highlighted the risk of disproportionate implementation costs for SMEs, which they suggested could be addressed through adequate funding and implementation support.

2.3. Targeted interviews

A total of 94 semi-structured interviews were conducted between January and March 2026 with a total of 140 national, regional and EU-level stakeholders. All 27 EU MS were covered by at least two interviews, and three additional interviews were conducted at EU level. The table below provides a breakdown of interviewees by stakeholder type.

Number of interviews by stakeholder type	
Stakeholder type	**Interviews**
Ministries, regional authorities, PES and digitalisation bodies	25 interviews, involving 34 stakeholders
Employers' organisations	14 interviews, involving 20 stakeholders
Accreditation authorities	14 interviews, involving 18 stakeholders
Trade unions	11 interviews, involving 12 stakeholders
Recognition authorities	10 interviews, involving 15 stakeholders
Validation authorities	7 interviews, involving 15 stakeholders
Stakeholders combining several mandates	13 interviews, involving 26 stakeholders

2.3.1. Problem definition

- **Administrative burdens and fragmentation** were identified as key obstacles. Most respondents described qualification recognition procedures as slow, fragmented and difficult to navigate, particularly where multiple authorities, certified translations or repeated documentation requests are involved, though there was variation at the Member State level. Recognition and validation authorities described an increasing volume of applications without commensurate resources.
- **Limited employer trust in non-national qualifications** was also identified as a key issue. Employers' organisations highlighted that many companies – particularly SMEs - lack the time, expertise or confidence to assess non-national credentials.

- **Skills validation systems** were described by many interviewees as underdeveloped, fragmented and unevenly known, with awareness gaps among individuals and employers identified as the main limitation.
- Regarding **EU tools**, interviewees largely agreed that the EQF remains the most consistently used and operationally relevant instrument, though several interviewees highlighted inconsistent referencing to the EQF as undermining credibility and called for stronger peer review or moderation.

2.3.2. Policy Options

Interviewees broadly supported **EU-level action** focused on simplification, coherence, transparency and trust-building, with interviewees frequently advocating for consolidation and improved implementation of existing instruments rather than the creation of new ones. Regarding **legislative measures**, interviewees expressed varying views. Some favoured binding EU instruments, arguing that uniform implementation requires legislative pressure. Others cautioned against new legislation, expressing that existing instruments would suffice if better implemented, or that increased legal rigidity could create new problems.

Interviewees broadly supported the development of **interoperable digital credentials**, with the EU Digital Identity Wallet often mentioned as a key enabling instrument. Several interviewees emphasised that this would require cryptographically verifiable, interoperable credentials linked to shared semantics. Concerns were also raised about implementation costs, particularly for smaller awarding bodies, and about the need for investment by verifiers to ensure that credentials can be processed by employers and public authorities. Trade union and civil society interviewees further emphasised that digital infrastructure should be publicly governed, accessible to users with limited digital skills, and complemented by non-digital alternatives.

Regarding **expected impacts and costs**, interviewees broadly anticipated positive medium- and long-term improvements to transparency, mutual trust and reduced administrative burden, while acknowledging short-term implementation costs, especially for issuers and public administrations. Several interviewees highlighted that success would be contingent on implementation-related arrangements, including capacity-building, awareness-raising, peer learning between MS and dedicated EU support.

2.4. Survey of qualification issuers

The survey of issuers of qualifications and learning credentials ran from 19 January to 3 March 2026 on the EU Survey platform and was disseminated broadly across EU networks. It gathered 574 responses from 39 countries, with the largest contingents from Poland (28%, n=161), Romania (10%, n=57), Portugal (7%, n=38), Spain (6%, n=37) and Malta (6%, n=36). No responses were received from Luxembourg, Liechtenstein, and Montenegro.

The table below provides a breakdown of survey respondents by types of issuing body.

Survey respondents by stakeholder type	
Type of issuing body	**% / N**
Public higher education institutions	24% (n=140)
Public primary and secondary schools	20% (n=114)
Private higher education institutions	13% (n=74)
Public VET institutions	7% (n=42)
Ministries of education or equivalent	6% (n=33)
Adult and continuing education centres	5% (n=27)
Private VET institutions	4% (n=21)
Recognition or certification authorities	3% (n=19)
Social partner organisations	3% (n=15)
Qualifications agencies	3% (n=15)
Professional chambers or regulatory bodies	2% (n=14)

The qualifications most frequently issued by respondents were higher education degrees (43%, n=244), adult and continuing education certificates (36%, n=205), school certificates (35%, n=202), vocational education diplomas (34%, n=197) and Diploma or Certificate Supplements (32%, n=181). Half of all respondents (50%, n=286) reported that all qualifications they issue are referenced under their NQF, with a further 23% (n=131) stating that most of them are.

2.4.1. Problem definition

Respondents highlighted several key issues. Over half of respondents agreed or strongly agreed with the following statements:

- Skills gained through work or non-formal and informal learning often go undocumented due to lack of validation pathways (63%, n=363);
- Current digital credential systems remain fragmented (61%, n=354);
- Differences in national systems make qualifications hard to compare (59%, n=336);
- The lack of a common legal framework limits the cross-border acceptance of micro-credentials (56%, n=323).

The survey also indicated that **paper-based issuance remains dominant**, with 82% (n=468) of respondents issuing paper certificates, 36% (n=206) issuing digitally signed PDFs, and 16% (n=89) issuing verifiable digital credentials in a structured, machine-readable form. The principal barriers to digitalisation identified were limited technical capacity to issue interoperable credentials (41%, n=228), lack of guidance or national support on EU-wide standards (34%, n=189), set-up and operational costs (34%, n=186) and limited awareness of EU tools (33%, n=184).

2.4.2. Policy Options

Respondents anticipated significant benefits from interoperable digital credentials, including simplification of processes (56%, n=320), improved understanding of qualifications from other European countries (44%, n=251), faster processes (43%, n=246), and reduced administrative burden in the longer term (43%, n=246).

Regarding costs, respondents reported a median current annual cost of issuing qualifications of **EUR 5 000** (with a mean of EUR 123 403) and a median expected annual cost under a future digital system of **EUR 10 000** (with a mean of EUR 79 276). Higher education institutions reported higher levels of digital readiness than schools, adult education centres and smaller VET providers, with respondents advocating proportionate implementation arrangements and dedicated capacity-building for smaller institutions.

2.5. Focus groups

Between February and March 2026, eight focus groups were organised, gathering a total of 88 participants. Each was conducted online, lasting approximately 2 hours, with a tailored discussion guide structured around the problem definition, costs and burdens, Policy Options and digital interoperability, supported by interactive polls.

Overview of participation in the focus groups		
Focus group	**Stakeholders represented**	**Participants**
Digital stakeholders	Bodies issuing digital credentials and digitalisation authorities	12
Youth stakeholders	Civil society organisations, trade union, employer organisations	15
User journey for employers	Companies, VET provider, employer organisations, chambers of commerce and recognition bodies	12
User journey for workers	Workers, trade unions, public employment services, and civil society organisations	13
Cross-border stakeholders	Mobile / cross-border workers, cooperation platforms, and civil society organisations	9
Heterogeneous focus group with workers, employer and social partners	Workers, trade unions, employers, employers' organisations	12
Heterogeneous focus group for issuers of qualifications	VET providers, higher education institutions, employer associations	5
Public and private employment services	EURES representatives, public employment services, private employment services	10

The focus group findings pointed to a consistent set of cross-cutting themes:

- **Persistent recognition barriers:** Across sectoral, geographical and stakeholder perspectives, participants described recognition processes as slow, costly and administratively complex, compounded by terminological ambiguity (e.g., between 'skills' and 'competences'), regulatory divergence between MS, and structural divergences in national education systems (e.g., three-year vs. four-year degrees). Recognition delays of two to four months as foreseen in EU legislation were reported in practice to extend to several months, particularly in healthcare and education, and often become entangled with taxation and social-security regimes.
- **Limited recognition of emerging and informal skills:** Participants observed that workplace-based learning, informally acquired competences, and emerging skills remain systematically underrepresented in formal credentialing. Higher education qualifications were noted to have limited portability beyond higher education, and

uptake of micro-credentials in professional and vocational education was described as slow.

- **Fragmentation and the need for digital infrastructure:** A recurring theme was the fragmentation of validation systems, tools and EU instruments, alongside a digital trust gap and significant adaptation costs for issuers transitioning to digital credentialing. Participants supported the development of a standardised, centralised digital environment, comprehensive NQF databases, inclusion in EUDI Wallet ecosystems, semantic interoperability of skills descriptions, and the consolidation of fragmented EU tools within a single portal.
- **Awareness, trust and capacity-building:** Limited employer understanding of non-national qualifications was raised across multiple groups, as was the broader cultural challenge of how employers' approach entry-level recruitment and emerging qualifications. Participants emphasised that recognition or acceptance of non-national qualifications is ultimately part of a wider labour-market integration challenge in which trust-building, awareness-raising and capacity-building among all stakeholders are at least as important as technical fixes.

There were some diverging views across the focus groups. For example, the user journey for employers focus group expressed significant **caution against any new EU legislation that might increase administrative burden** and emphasised that education systems and qualification frameworks should remain nationally determined, favouring pragmatic, sectoral pilots over comprehensive overhaul. However, the user journey for workers and cross-border stakeholders focus groups, by contrast, argued more strongly for **binding EU action to ensure consistent implementation**.

2.6. Expert workshops

Four expert workshops were organised in February 2026. The workshops were conducted online (2–3 hours), based on detailed discussion guides, and combined plenary discussion with interactive polling and break-out sessions. The four workshops addressed the following dimensions:

- **Skills not captured in a qualification and the use of technologies:** this workshop involved 7 participants from 5 countries, representing national authorities, sectoral organisations, a higher education institution and an EU agency;
- **ENIC-NARIC recognition of VET qualifications for the purpose of worker mobility:** this workshop involved 12 participants from 10 countries, mostly representing recognition authorities;
- **Interoperability and infrastructure needs:** this workshop involved 14 participants from 9 countries, who were predominantly researchers, VET/HE representatives, SMEs and public authorities;
- **Assessing and matching skills in qualifications to job requirements: Approaches and tools used by PES / EURES and employers:** this workshop involved 9 participants from 8 countries, representing public and private employment services, EURES advisers, employer organisations and HR associations.

2.6.1. Problem definition

A common topic discussed across the expert workshops was how non-formal and informal learning is used in the labour market. The principal challenges mentioned were the absence of a common language for describing skills, preference towards traditional qualifications amongst employers and institutions, awareness gaps regarding existing frameworks (ESCO, EQF, NQFs, Europass), and significant financial constraints affecting both individual access to validation and the sustainability of validation infrastructures.

Participants broadly agreed that the technology for digital credential exchange is largely available, but adoption is hindered by issues relating to harmonisation, trust and governance rather than technical limitations. These issues included the absence of common cross-border verification governance, varying interpretations of GDPR and eIDAS, and inconsistent frameworks for non-formal and informal training. Participants emphasised the need for a common trust infrastructure, shared semantics and ontologies, privacy features such as selective disclosure and verifier-side investment.

2.6.2. Policy Options

Across the workshops, participants advocated for **tools to facilitate comparison, regularly updated qualification registers, improved digital access, and stronger structures for VET recognition**. The credibility of EQF referencing was seen as essential, requiring stronger peer review, with IMI cited as a potentially scalable model.

On policy direction, several participants questioned whether voluntary uptake would be sufficient, suggesting that an EU-level requirement in the form of a directive or regulation might be necessary to overcome slow and uneven adoption, while others emphasised the importance of preserving prior national investments. Across the workshops, participants frequently underlined the importance of a cultural shift from a quality-control logic towards a trust-based approach, accompanied by investments in awareness campaigns and capacity-building for employers, trainers and learners.

2.7. SME panel

The SME panel was administered through the EU Survey portal in between 11 February and 1 April 2026 and **gathered 159 responses** from SMEs in 18 EU[171] and third countries. Respondents by enterprise size and sector were distributed as follows:

- Small enterprises constituted the largest group (**31%, n=50**), followed by microenterprises (30%, n=47), medium-sized enterprises (23%, n=36), large enterprises (11%, n=17) and self-employed respondents (6%, n=9).
- Manufacturing was the most represented sector (**23%, n=36**), followed by professional, scientific and technical activities (10%, n=16).
- Most respondents were directly involved in recruitment (**58%, n=93**), with a further 20% (n=31) indirectly involved in recruitment.

2.7.1. Problem definition

The principal obstacles cited were administrative and bureaucratic burdens, language barriers, difficulties verifying and comparing skills and qualifications, practical settlement barriers (work and residence permits), and costs associated with cross-border hiring. The most frequently reported challenges in assessing EU qualifications were insufficient familiarity with non-national education systems (44%, n=70), difficulty verifying authenticity (40%, n=63), language barriers (38%, n=61) and lack of clear information on the comparability of qualifications (36%, n=57).

Respondents were asked to provide cost and internal resource estimates for the processing of qualifications during hiring procedures, including potential formal recognition procedures.

[171] The largest national samples were Spain (n=47), Greece (n=23), Poland (n=21), Italy (n=9), Germany (n=8), France (n=8), and Romania (n=8).

SME panel responses on mean cost and duration of processing qualifications during hiring procedures			
Qualification origin	**Mean external cost per hire**	**Mean person-hours invested**	**Mean process duration**
National qualifications	EUR 657	40 hours	21 days
Non-national EU qualifications	EUR 814	55 hours	37 days

2.7.2. Policy Options

SMEs identified the principal benefits expected from a common EU digital system as **reduced administrative burden during recruitment (68%, n=108)**, easier assessment of non-national qualifications (63%, n=100) and faster recruitment (61%, n=97). **Mean expected savings ranged from 26% on fees for recognition bodies to 36% on internal administrative time**. A clear majority (71%, n=114) indicated they would be very or somewhat likely to use EU-wide digital credentials. When asked about what concerns they would have about EU-level digital credentials, the most common responses were on system compatibility (39%, n=62), legal acceptance across countries (38%, n=60), technical complexity (35%, n=56) and data privacy (31%, n=49).

3. Summary overview of results

When brought together, the consultation activities provided a coherent evidence base to draw from.

3.1. Problem definition

Public consultation respondents, call for evidence respondents, interviewees, focus group participants, expert workshop participants, issuers of qualifications and SMEs broadly identified the same set of structural challenges:

- Fragmented and unevenly implemented recognition systems;
- Persistent administrative burden, including repeated documentation requests, certified translations and high fees;
- Limited employer trust in and/or familiarity with non-national qualifications, which can be particularly challenging to address for SMEs;
- Underdeveloped systems for the validation of non-formal and informal learning;
- A digital landscape characterised by partial uptake, fragmented standards and limited interoperability.

Although the intensity of these challenges varies across MS, there were no consultation activities that contradicted this description.

3.2. Policy Options

Across all consultation activities, stakeholders supported EU-level intervention focused on improving the coherence, usability and trustworthiness of existing instruments, deepening digitalisation through interoperable and verifiable credentials, and strengthening systems for the validation of skills acquired through non-formal and informal learning. Stakeholders converged on the desirability of an EU-wide system of interoperable digital credentials underpinned by a common trust infrastructure, while still stressing the importance of human

oversight, accessibility for users with limited digital literacy, and the availability of non-digital alternatives.

Several of the expert workshops emphasised **the central role of trust as the operational foundation of any framework of mutual recognition**, and the corresponding importance of building or strengthening the institutional networks responsible for credentialing, recognition and quality assurance. Awareness-raising and capacity-building, particularly for employers (and especially SMEs), individuals and smaller education and training providers, were repeatedly identified as essential complements to any technical or legal reform.

While the vast majority of stakeholders supported the need for EU action, there was nuance in how this should be approached. In particular, stakeholders had diverging perspectives on whether the EU should adopt new binding legislation. Public consultation respondents, trade unions and public authorities interviewed, SMEs and respondents to the call for evidence broadly supported strong EU action, sharing the view that **binding measures would be necessary to drive reform at the pace required**. However, employers' organisations, several accreditation and recognition authorities, education-sector stakeholders and several interviewees in countries with mature national systems argued for **caution on grounds of national competence, administrative burden, and the risk of lowering professional standards**.

A second tension concerns the relative weighting of qualifications and skills in the policy approach. Higher education institutions, accreditation authorities and recognition authorities tended to emphasise **the importance of preserving qualifications-based recognition** and the protective role of quality assurance frameworks. Employers, trade unions, public employment services and validation authorities tended to emphasise **the importance of recognising skills regardless of how they were acquired**, including through non-formal and informal learning.

Annex 3: WHO IS AFFECTED AND HOW?

1. Practical implications of the initiative

The Preferred Option (PO2) includes the digitalisation of all new NQF qualifications with the EUDI Wallet, of NQF qualifications issued in the past 10 years for the purpose of employment in another MS and older qualifications issued on demand for the purpose of employment in another MS, giving a legal value to digital credentials (EQF levels 2-8). As part of the preferred option, having in place a comprehensive NQF that is regularly referenced to the EQF is mandatory for MS, as is the sharing of information on qualifications in NQFs with the Europass platform. Furthermore, the Commission will make available a qualifications comparison tool. The practical implications differ across stakeholder groups.

Workers will be able to store and share digitally verified qualifications through the EUDI Wallet, reducing the time and cost currently spent obtaining, translating and submitting qualification documents to prospective employers. They will also be able to present their qualifications more clearly when looking for work in another MS. Thanks to the comparison tool they will be able to better understand how their qualification compares with other qualifications in the MS where they wish to apply for a job.

Employers will benefit from the possibility to receive qualifications in a digital format, allowing them to better understand the level and content (skills) of qualifications and to save time and effort through the possibility to instantly verify the authenticity and validity of qualifications of applicants. They will furthermore be able to easily compare qualifications of applications (whether from the same MS or from another MS) with a qualification they know, through the qualifications comparison tool and through national qualifications registers or databases if they consider that useful. The improved possibilities to understand and verify qualifications will allow employers to a achieve a better matching between candidates and jobs.

Issuing institutions will need to integrate EU digital credential issuance into their existing workflows, covering both staff training and IT system upgrades, and maintain the operational capacity to issue and validate digital credentials on an ongoing basis. They will in turn benefit from fewer queries regarding authenticity of qualifications they issued.

2. Summary of costs and benefits

I. Overview of Benefits (total for all provisions) – Preferred Option		
Description	**Amount**	**Comments**
Direct benefits		
Cost savings for employers to assess qualifications	**72 – 90.8**	Regardless of how employers' behaviour in checking qualifications evolves, digital credentials for qualifications will lower the cost for employers to verify their authenticity. In addition, reliable and comparable information will be available for all employers to understand the meaning of qualifications, regardless of their HR capacity.

I. Overview of Benefits (total for all provisions) – Preferred Option		
Description	**Amount**	**Comments**
Cost savings for workers in comparability statements	**26.3 – 79.1**	Workers will less often need to spend time and money obtaining a comparability statement to demonstrate the value of their qualifications. Where this is still required, obtaining one will be cheaper, as the assessment bodies responsible will have access to official and comparable information to conduct the comparability assessment.
Cost saving for issuers of qualifications to verify them	**65.5 – 166**	Education and training institutions will be contacted less often by third parties to verify the authenticity of a qualification, as qualifications will be issued as verifiable digital credentials within a trust framework and linked to the identity of the qualification holder.
Indirect benefits		
It is not possible to calculate them, but they relate to increase productivity and reduced overqualification.		
Administrative cost savings related to the 'one in, one out' approach		
There are no expected administrative costs for citizens and businesses arising from the initiative.		

The figures are presented as present value, 2026-2040, in EURO million, the benefits start to occur from year 4, after transition period.

II. Overview of costs – Preferred option							
		Citizens/Consumers (Workers)		**Businesses (Employers)**		**Administrations (European Commission and MS)***	
		One-off	**Recurrent**	**One-off**	**Recurrent**	**One-off**	**Recurrent**
Action (a)	**Direct adjustment costs**	n/a	n/a	n/a	n/a	European Commission: € 4,000,000 MS: Lower bound € 407,075,832 Upper bound	European Commission: € 7,000,000 MS Lower bound € 625,584,422

						€ 513,525,906	Upper bound € 752,728,608
	Direct administrative costs	n/a	n/a	n/a	n/a		
	Direct regulatory fees and charges	n/a	n/a	n/a	n/a		
	Direct enforcement costs	n/a	n/a	n/a	n/a		
	Indirect costs	n/a	n/a	n/a	n/a		

***** All costs of the preferred policy option as present value (2026–2040).

Table 21 presents a more detailed overview of costs per type of cost and stakeholder.

Table 21: Summary of cost for the preferred policy option (present value, 2026 - 2040)

Stakeholder	**Type of cost**	**Total per type of cost**		**Total per stakeholder**	
		Lower bound	*Upper bound*	*Lower bound*	*Upper Bound*
European Commission	Cost of the back-office tool connecting national databases and comparison qualifications tool	€ 8,900,000	€ 8,900,000	€11,000,000	€11,000,000
	Costs of the reference verifier software	€ 2,100,000	€ 2,100,000		
	Costs to support non-formal providers of micro-credentials	€-	€-		
MS	Cost for MS to have, connect and maintain national registries of qualifications, awarding bodies and accreditation	€13,490,692	€13,490,692	€1,032,660,25	€1,266,254,514
	Cost of providing a verification software	€21,882,091	€21,882,091		

	Cost of providing an issuing infrastructure for qualifications	€927,911,541	€1,143,650,431		
	Cost of issuing past qualifications in a digital interoperable format	€72,264,277	€90,119,647		
Total costs		*Lower bound*		*Upper bound*	
		€1,043,660,254		€1,277,254,514	

III. Contribution to the administrative burden reduction targets – Preferred option(s)					
Administrative costs [M€]	**New recurrent costs (INs) (nominal values per year)**	**Removed recurrent costs (OUTs) (nominal values per year)**	**Net cost (INs – OUTs) (nominal values per year)**	**New one-off costs (INs) (annualised total net present value over the relevant period)**	**Removed one-off costs (OUTs) (annualised total net present value over the relevant period)**
All businesses	n/a	n/a	n/a	n/a	n/a
• **in which SMEs**	n/a	n/a	n/a	n/a	n/a
Public administrations	n/a	n/a	n/a	n/a	n/a
Citizens	n/a	n/a	n/a	n/a	n/a

3. Relevant Sustainable Development Goals

IV. Overview of relevant Sustainable Development Goals – Preferred Option(s)		
Relevant SDG	**Expected progress towards the Goal**	**Comments**
SDG no. 8 – decent work and economic growth	The Preferred Option is expected to contribute positively to SDG 8 by reducing barriers to labour mobility, improving job matching and lowering recruitment friction for businesses. By facilitating the portability of qualifications and skills, improving access to reliable qualification information and enabling interoperable digital qualifications, the initiative is expected to support more efficient labour market matching, better allocation of skills across the EU,	The reduction in administrative and information barriers is expected to generate lasting benefits for labour mobility, labour market efficiency and productivity beyond the appraisal period.

	and higher productivity.	
SDG no. 10 – reduced inequalities	The Preferred Option contributes positively to SDG 10 by reducing barriers faced by workers seeking to use qualifications obtained in another Member State. By improving access to reliable qualification information and interoperable digital qualifications, the initiative is expected to reduce information asymmetries and improve access to employment opportunities across the Single Market. A potential risk is that the digitalisation could create a transitional disadvantage for workers and SMEs with limited digital access or literacy.	The risk of a digital divide is expected to be limited given that the EUDI Wallet is free and accessible to all EU citizens and that analogue fallback procedures remain available.
SDG no. 9 – industry, innovation and infrastructure	The Preferred Option contributes positively to SDG 9 through the digitalisation of qualifications. The integration of verified qualifications into the EUDI Wallet builds on and reinforces the EU's broader digital infrastructure, supporting the development of trusted, interoperable digital systems across MS. For businesses, the shift from manual, document-based credential verification to standardised digital checks represents a modest but meaningful improvement in organisational and administrative processes.	The contribution to SDG 9 mainly reflects the digitalisation measures underpinning the portability of qualifications. Infrastructure costs associated with the EUDI Wallet are covered under the corresponding EU digital initiatives and are therefore not attributed to the costs of the Preferred Option.

Annex 4: ANALYTICAL METHODS

1. For the calculations of all the costs and the calculations cost-savings for employers: The SPI Marginal Cost Model

Purpose and core method

This model estimates the ten-year public and societal cost of the Skills Portability Initiative (SPI), comparing two technical approaches - the EU Digital Identity Wallet (Option A: Policy Options 1 and 2) and the Europass Digital Credentials (Option B: Policy Option 3) - against a defined counterfactual baseline. Every cost line is a MARGINAL cost: the difference between the harmonised SPI approach and what would most likely happen anyway without it, not the gross cost of building a digital qualification system from nothing.

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MARGINAL = OPTION (SPI-side) cost – BASELINE (counterfactual) cost
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This holds for every cost element below, calculated separately for one-off and annual costs and separately for each option - but the baseline is defined differently module by module, since "what happens anyway" genuinely differs between issuing a credential and verifying one across a border. Two mechanisms produce a marginal cost in this workbook: an explicit BASELINE-vs-OPTION subtraction (most modules), or a baseline that is genuinely zero by construction, so the gross cost already IS the marginal cost (Historical Qualifications; Verification's own infrastructure; Micro-credentials (non-NQF)).

Cost for the EU databases (European Commission and MS)

The one shared accreditation/trust-registry build, identical whichever issuance option is chosen.

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EU-side annual MARGINAL = (SPI build × maintenance rate + EU coordination) – baseline annual running cost
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The baseline annual running cost (€800,000) is a genuine input representing what it costs to keep existing partial tools (ETER, DEQAR, etc.) running today, independent of SPI.

Member State connection costs: a one-off build (€250,000, scaled down by each Member State's own readiness score) and annual maintenance (€50,000, set as 20% of the build cost). A separate, binary already-connected flag - distinct from the continuous readiness score - identifies MS already connected to an existing database/registry today; this flag is now populated for 16 of the 27 MS, driving a real baseline annual maintenance cost (€30,000/year) for each of them.

The baseline rate for already-connected MS (€30,000) does not match the SPI-side maintenance rate (€50,000). Each already-connected Member State shows a real €20,000/year marginal cost: a new SPI-specific connection costs more to maintain than whatever a Member State already has.

Table 22: Cost of connection and backfill cost, scaled by readiness

Member State	DB connection readiness (0-1)	Connection one-off (scaled)	Connection maintenance annual	Backfill one-off (fixed, scaled, switch-gated)	Baseline connection maintenance annual (already-connected only)
Austria	0.80	€50,000	€20,000	€12,000	€30,000
Belgium	0.75	€62,500	€20,000	€15,000	€30,000
Bulgaria	0.15	€212,500	€50,000	€51,000	€0
Croatia	0.25	€187,500	€50,000	€45,000	€0
Cyprus	0.15	€212,500	€50,000	€51,000	€0
Czechia	0.80	€50,000	€20,000	€12,000	€30,000
Denmark	0.80	€50,000	€20,000	€12,000	€30,000
Estonia	0.50	€125,000	€50,000	€30,000	€0
Finland	0.50	€125,000	€50,000	€30,000	€0
France	0.80	€50,000	€20,000	€12,000	€30,000
Germany	0.80	€50,000	€20,000	€12,000	€30,000
Greece	0.60	€100,000	€50,000	€24,000	€0
Hungary	0.50	€125,000	€50,000	€30,000	€0
Ireland	0.80	€50,000	€20,000	€12,000	€30,000
Italy	0.25	€187,500	€50,000	€45,000	€0
Latvia	0.80	€50,000	€20,000	€12,000	€30,000
Lithuania	0.80	€50,000	€20,000	€12,000	€30,000
Luxembourg	0.25	€187,500	€50,000	€45,000	€0
Malta	0.80	€50,000	€20,000	€12,000	€30,000
Netherlands	0.80	€50,000	€20,000	€12,000	€30,000
Poland	0.80	€50,000	€20,000	€12,000	€30,000
Portugal	0.80	€50,000	€20,000	€12,000	€30,000
Romania	0.50	€125,000	€50,000	€30,000	€0
Slovakia	0.80	€50,000	€20,000	€12,000	€30,000

Slovenia	0.80	€50,000	€20,000	€12,000	€30,000
Spain	0.50	€125,000	€50,000	€30,000	€0
Sweden	0.80	€50,000	€20,000	€12,000	€30,000
EU-27 MS	**0.63**	**€2,525,000**	**€870,000**	**€606,000**	**€480,000**
+ EU-side: database build (marginal) + coordination + technical maintenance (marginal)		**€4,500,000**	**€760,000**		
TOTAL SHARED DATABASE COST (added identically to every scenario)		**€7,631,000**	**€1,630,000**		

Cost for MS to provide an issuance infrastructure (Option A and Option B)

Calculated per Member State, then summed EU-27, and split by actor (Institution, Awarding Body, Issuer, and a residual National Coordination line):

```
BASELINE (per MS) = p × (national profile design + institutions × integration + awarding bodies × setup + issuers × platform cost)
OPTION (per MS) = adopt-common-profile cost + institutions × (integration + delta) + awarding bodies × (setup + delta) + issuers × (platform + delta)
MARGINAL = OPTION − BASELINE
```

p is each Member State's baseline-adoption probability (see Annex 8(5) for more detail on this). Annual costs (per-issuer, per-awarding-body, per-attestation, per-institution-support) follow the identical pattern. The per-attestation cost is the marginal cost of issuance into the wallet - the additional cost of digital over paper, not the full cost of issuing a qualification at all. Under Option B there is no separate Issuer: the awarding body self-issues, so Option B's Issuer line is always exactly zero.

To converts institution counts to awarding-body counts (shared by both options), different awarding-governance models are considered as shown in this table:

Table 23: Awarding-Governance Models

Code	Model	Verified examples	Awarding bodies = inst. x ratio	+ fixed
SELF	Self-awarding under accreditation	ES official, DE, NL	1	0
PUB	Public awarding body	IE (QQI, private colleges/FET)	0	1
MIX	Self-awarding + public body	IE overall	0.6	1
VAL	Validation by recognised institution	Business schools EU-wide	0.4	0
3P	Third-party / foreign awarding body	MT, CY	0.2	0
STATE	State examination / ministry award	Upper secondary, most MS	0	2
CHAM	Chamber or sectoral body	DE, AT dual VET	0	8

Bellow the detailed tables of these calculations are presented considering only the more comprehensive approach for counting the number of education and training institutions in the EU: 44,354 (see Annex 8(7) for further details on this figure). A parallel exercise is done in the model considering the lower end of this range: 32,788.

Table 24: One-off costs of issuance under EU DI Wallet

Member State	In-scope inst.	Awarding bodies	Issuers	Baseline p	BASELINE one-off	OPTION A one-off	MARGINAL one-off	Institution MARGINAL	Awarding Body MARGINAL	Issuer MARGINAL	Nat'l Coord. MARGINAL
Austria	412	282	9	0.60	€ 9,991,500.00	€18,475,850	**€8,484,350**	€4,284,800	€3,835,200	€514,350	-€150,000
Belgium	1,718	180	3	0.55	€ 21,751,125.00	€43,664,513	**€21,913,188**	€19,241,600	€2,619,000	€185,288	-€132,500
Bulgaria	1,573	139	1	0.30	€ 10,619,250.00	€37,251,375	**€26,632,125**	€23,955,200	€2,682,700	€84,825	-€45,000
Croatia	578	142	1	0.35	€ 5,450,375.00	€16,396,988	**€10,946,613**	€8,323,200	€2,605,700	€80,213	-€62,500
Cyprus	148	54	1	0.35	€ 1,670,375.00	€4,810,188	**€3,139,813**	€2,131,200	€990,900	€80,213	-€62,500
Czechia	1,412	70	14	0.40	€ 12,766,000.00	€34,165,600	**€21,399,600**	€19,203,200	€1,218,000	€1,058,400	-€80,000
Denmark	420	55	5	0.70	€ 7,481,250.00	€11,875,375	**€4,394,125**	€3,696,000	€643,500	€239,625	-€185,000
Estonia	53	55	1	0.70	€ 2,028,250.00	€3,001,075	**€972,825**	€466,400	€643,500	€47,925	-€185,000
Finland	197	199	2	0.75	€ 7,117,500.00	€10,716,875	**€3,599,375**	€1,576,000	€2,139,250	€86,625	-€202,500
France	5,154	6	18	0.65	€ 68,643,250.00	€118,975,725	**€50,332,475**	€49,478,400	€75,900	€945,675	-€167,500
Germany	5,837	517	16	0.60	€ 79,089,000.00	€147,589,400	**€68,500,400**	€60,704,800	€7,031,200	€914,400	-€150,000
Greece	633	406	1	0.70	€ 16,290,750.00	€26,474,275	**€10,183,525**	€5,570,400	€4,750,200	€47,925	-€185,000
Hungary	527	69	1	0.40	€ 5,091,000.00	€13,454,400	**€8,363,400**	€7,167,200	€1,200,600	€75,600	-€80,000
Ireland	288	28	3	0.65	€ 4,645,875.00	€7,754,988	**€3,109,113**	€2,764,800	€354,200	€157,613	-€167,500
Italy	7,331	263	20	0.70	€ 109,056,500.00	€177,419,900	**€68,363,400**	€64,512,800	€3,077,100	€958,500	-€185,000
Latvia	101	58	1	0.35	€ 1,376,375.00	€3,912,788	**€2,536,413**	€1,454,400	€1,064,300	€80,213	-€62,500

Lithuania	98	47	1	0.45	€ 1,618,875 .00	€3,619,913	**€2,001, 038**	€1,254 ,400	€773,1 50	€70,98 8	- €97,50 0
Luxembour g	76	57	1	0.50	€ 1,703,750 .00	€3,450,625	**€1,746, 875**	€912,0 00	€883,5 00	€66,37 5	- €115,0 00
Malta	26	25	1	0.45	€ 723,375.0 0	€1,440,913	**€717,53 8**	€332,8 00	€411,2 50	€70,98 8	- €97,50 0
Netherland s	842	844	1	0.85	€ 32,642,12 5.00	€45,296,913	**€12,654 ,788**	€5,388 ,800	€7,469 ,400	€34,08 8	- €237,5 00
Poland	4,40 6	549	1	0.50	€ 51,153,75 0.00	€112,486,625	**€61,332 ,875**	€52,87 2,000	€8,509 ,500	€66,37 5	- €115,0 00
Portugal	987	292	2	0.45	€ 12,426,75 0.00	€29,908,225	**€17,481 ,475**	€12,63 3,600	€4,803 ,400	€141,9 75	- €97,50 0
Romania	1,05 1	108	1	0.40	€ 9,673,000 .00	€25,841,400	**€16,168 ,400**	€14,29 3,600	€1,879 ,200	€75,60 0	- €80,00 0
Slovakia	548	37	1	0.40	€ 4,939,000 .00	€13,031,200	**€8,092, 200**	€7,452 ,800	€643,8 00	€75,60 0	- €80,00 0
Slovenia	254	109	1	0.40	€ 3,307,000 .00	€8,653,600	**€5,346, 600**	€3,454 ,400	€1,896 ,600	€75,60 0	- €80,00 0
Spain	8,10 8	1,34 5	17	0.75	€ 148,535,6 25.00	€228,392,188	**€79,856 ,563**	€64,86 4,000	€14,45 8,750	€736,3 13	- €202,5 00
Sweden	1,57 6	52	3	0.80	€ 26,806,00 0.00	€38,558,900	**€11,752 ,900**	€11,34 7,200	€509,6 00	€116,1 00	- €220,0 00
EU-27 MS	**44,3 37**	**5,98 8**	**12 7**		**€656,597 ,625**	**€1,186,619, 813**	**€530,0 22,188**	**€449, 290,4 00**	**€77,1 69,40 0**	**€7,08 7,388**	**- €3,52 5,000**
TOTAL MARGINAL ONE-OFF							**€530, 022,1 88**				

Table 25: Annual costs of issuance under EU DI Wallet

Member State	In-scop e inst.	Awar ding bodies	Issu ers	Annua l attest. vol.	BASELI NE annual	OPTION A annual	MARGI NAL annual	Instituti on MARGI NAL	Awardin g Body MARGI NAL	Issuer MARGI NAL
Austria	412	282	9	176,3 39	€2,142,7 12	€3,571,1 87	**€1,428,4 75**	€576,80 0	€507,60 0	€344,07 5
Belgium	1,71 8	180	3	249,7 95	€4,239,5 55	€7,708,2 83	**€3,500,2 27**	€2,705, 850	€364,50 0	€429,87 7
Bulgaria	1,57 3	139	1	148,9 49	€2,003, 796	€6,679, 322	**€4,675,5 25**	€3,861, 200	€437,85 0	€383,82 5
Croatia	578	142	1	70,90 5	€1,028,0 09	€2,937,1 68	**€1,909,1 59**	€1,314, 950	€415,35 0	€178,85 9
Cyprus	148	54	1	22,49 4	€303,35 5	€866,72 9	**€563,374**	€336,70 0	€157,95 0	€68,724
Czechia	1,41 2	70	14	171,8 52	€2,494,5 93	€6,236,4 82	**€3,741,8 89**	€2,965, 200	€189,00 0	€587,68 9

Denmark	420	55	5	157,010	€1,681,425	€2,402,035	**€720,611**	€441,000	€74,250	€205,361
Estonia	53	55	1	20,587	€372,438	€532,055	**€159,616**	€55,650	€74,250	€29,716
Finland	197	199	2	164,011	€1,659,779	€2,213,039	**€553,260**	€172,375	€223,875	€157,010
France	5,154	6	18	1,809,993	€16,176,534	€24,886,976	**€8,710,441**	€6,313,650	€9,450	€2,387,341
Germany	5,837	517	16	1,280,256	€16,601,338	€27,668,896	**€11,067,558**	€8,171,800	€930,600	€1,965,158
Greece	633	406	1	194,500	€3,325,175	€4,750,250	**€1,425,075**	€664,650	€548,100	€212,325
Hungary	527	69	1	153,402	€1,087,563	€2,718,907	**€1,631,344**	€1,106,700	€186,300	€338,344
Ireland	288	28	3	178,421	€1,195,658	€1,839,474	**€643,816**	€352,800	€44,100	€246,916
Italy	7,331	263	20	1,092,406	€21,843,795	€31,205,421	**€9,361,626**	€7,697,550	€355,050	€1,309,026
Latvia	101	58	1	28,979	€260,024	€742,927	**€482,902**	€229,775	€169,650	€83,477
Lithuania	98	47	1	47,122	€335,892	€746,427	**€410,535**	€188,650	€116,325	€105,560
Luxembourg	76	57	1	8,369	€289,396	€578,792	**€289,396**	€133,000	€128,250	€28,146
Malta	26	25	1	14,865	€127,137	€282,528	**€155,390**	€50,050	€61,875	€43,465
Netherlands	842	844	1	413,958	€6,987,725	€8,220,853	**€1,233,128**	€442,050	€569,700	€221,378
Poland	4,406	549	1	741,928	€10,257,624	€20,515,248	**€10,257,624**	€7,710,500	€1,235,250	€1,311,874
Portugal	987	292	2	212,850	€2,505,364	€5,567,475	**€3,062,111**	€1,899,975	€722,700	€439,436
Romania	1,051	108	1	303,170	€2,101,038	€5,252,595	**€3,151,557**	€2,207,100	€291,600	€652,857
Slovakia	548	37	1	81,456	€958,638	€2,396,596	**€1,437,958**	€1,150,800	€99,900	€187,258
Slovenia	254	109	1	37,819	€615,547	€1,538,867	**€923,320**	€533,400	€294,300	€95,620
Spain	8,108	1,345	17	1,112,256	€29,086,797	€38,782,396	**€9,695,599**	€7,094,500	€1,513,125	€1,087,974
Sweden	1,576	52	3	195,323	€5,211,704	€6,514,631	**€1,302,926**	€1,103,200	€46,800	€152,926
EU-27 MS	**44,337**	**5,988**	**127**		**€134,895,761**	**€217,366,053**	**€82,470,292**	**€59,448,375**	**€9,767,700**	**€13,254,217**
TOTAL MARGINAL ANNUAL							**€82,494,442**			

Table 26: Annual costs of issuance under Europass Wallet

Member State	In-scope inst.	Awarding bodies	Baseline p	BASELINE one-off	OPTION B one-off	MARGINAL one-off	Institution MARGINAL	Awarding Body MARGINAL	Nat'l Coord. BASELINE	Nat'l Coord. OPTION B
Austria	412	282	0.60	€9,384,000	€19,948,400	**€10,564,400**	€4,284,800	€6,429,600	€210,000	€60,000
Belgium	1,718	180	0.55	€21,565,500	€44,931,600	**€23,366,100**	€19,241,600	€4,257,000	€192,500	€60,000

Bulgaria	1,573	139	0.30	€10,585,500	€38,328,200	**€27,742,700**	€23,909,600	€3,878,100	€105,000	€60,000
Croatia	578	142	0.35	€5,411,000	€17,512,800	**€12,101,800**	€8,323,200	€3,841,100	€122,500	€60,000
Cyprus	148	54	0.35	€1,631,000	€5,160,400	**€3,529,400**	€2,131,200	€1,460,700	€122,500	€60,000
Czechia	1,412	70	0.40	€12,136,000	€33,093,200	**€20,957,200**	€19,203,200	€1,834,000	€140,000	€60,000
Denmark	420	55	0.70	€7,087,500	€11,759,000	**€4,671,500**	€3,696,000	€1,160,500	€245,000	€60,000
Estonia	53	55	0.70	€1,949,500	€3,391,400	**€1,441,900**	€466,400	€1,160,500	€245,000	€60,000
Finland	197	199	0.75	€6,948,750	€12,352,000	**€5,403,250**	€1,576,000	€4,029,750	€262,500	€60,000
France	5,154	6	0.65	€67,327,000	€116,769,600	**€49,442,600**	€49,478,400	€131,700	€227,500	€60,000
Germany	5,837	517	0.60	€78,009,000	€150,351,400	**€72,342,400**	€60,704,800	€11,787,600	€210,000	€60,000
Greece	633	406	0.70	€16,212,000	€30,164,000	**€13,952,000**	€5,570,400	€8,566,600	€245,000	€60,000
Hungary	527	69	0.40	€5,046,000	€13,941,000	**€8,895,000**	€7,167,200	€1,807,800	€140,000	€60,000
Ireland	288	28	0.65	€4,426,500	€7,638,400	**€3,211,900**	€2,764,800	€614,600	€227,500	€60,000
Italy	7,331	263	0.70	€107,481,500	€177,358,600	**€69,877,100**	€64,512,800	€5,549,300	€245,000	€60,000
Latvia	101	58	0.35	€1,337,000	€4,297,800	**€2,960,800**	€1,454,400	€1,568,900	€122,500	€60,000
Lithuania	98	47	0.45	€1,568,250	€3,916,600	**€2,348,350**	€1,254,400	€1,191,450	€157,500	€60,000
Luxembourg	76	57	0.50	€1,647,500	€3,841,000	**€2,193,500**	€912,000	€1,396,500	€175,000	€60,000
Malta	26	25	0.45	€672,750	€1,541,800	**€869,050**	€332,800	€633,750	€157,500	€60,000
Netherlands	842	844	0.85	€32,546,500	€53,354,000	**€20,807,500**	€5,388,800	€15,656,200	€297,500	€60,000
Poland	4,406	549	0.50	€51,097,500	€117,305,000	**€66,207,500**	€52,872,000	€13,450,500	€175,000	€60,000
Portugal	987	292	0.45	€12,325,500	€32,263,800	**€19,938,300**	€12,633,600	€7,402,200	€157,500	€60,000
Romania	1,051	108	0.40	€9,628,000	€26,671,200	**€17,043,200**	€14,293,600	€2,829,600	€140,000	€60,000
Slovakia	548	37	0.40	€4,894,000	€13,236,200	**€8,342,200**	€7,452,800	€969,400	€140,000	€60,000
Slovenia	254	109	0.40	€3,262,000	€9,492,200	**€6,230,200**	€3,454,400	€2,855,800	€140,000	€60,000
Spain	8,108	1,345	0.75	€147,101,250	€238,999,000	**€91,897,750**	€64,864,000	€27,236,250	€262,500	€60,000
Sweden	1,576	52	0.80	€26,536,000	€38,672,000	**€12,136,000**	€11,347,200	€1,008,800	€280,000	€60,000
EU-27 MS	**44,354**	**5,988**		**€647,817,000**	**€1,226,290,600**	**€578,473,600**	**€449,290,400**	**€132,708,200**	**€5,145,000**	**€1,620,000**
TOTAL MARGINAL ONE-OFF						**€578,473,600**				

Table 27: Annual costs of issuance under Europass Wallet

Member State	In-scope inst.	Awarding bodies	Annual attest. vol.	Seal annual	AB annual	Attestation annual	Inst. support annual	BASELINE annual	OPTION B annual	MARGINAL annual	Institution MARGINAL	Awarding Body MARGINAL
Austria	412	282	176,339	€423,000	€1,269,000	€617,187	€1,442,000	€2,250,712	€3,751,187	**€1,500,475**	€576,800	€923,675
Belgium	1,718	180	249,795	€270,000	€810,000	€874,283	€6,013,000	€4,382,005	€7,967,283	**€3,585,277**	€2,705,850	€879,427
Bulgaria	1,573	139	148,949	€208,500	€625,500	€521,322	€5,505,500	€2,058,246	€6,860,822	**€4,802,575**	€3,853,850	€948,725
Croatia	578	142	70,905	€213,000	€639,000	€248,168	€2,023,000	€1,093,109	€3,123,168	**€2,030,059**	€1,314,950	€715,109
Cyprus	148	54	22,494	€81,000	€243,000	€78,729	€518,000	€322,255	€920,729	**€598,474**	€336,700	€261,774
Czechia	1,412	70	171,852	€105,000	€315,000	€601,482	€4,942,000	€2,385,393	€5,963,482	**€3,578,089**	€2,965,200	€612,889
Denmark	420	55	157,010	€82,500	€247,500	€549,535	€1,470,000	€1,644,675	€2,349,535	**€704,861**	€441,000	€263,861
Estonia	53	55	20,587	€82,500	€247,500	€72,055	€185,500	€411,288	€587,555	**€176,266**	€55,650	€120,616
Finland	197	199	164,011	€298,500	€895,500	€574,039	€689,500	€1,843,154	€2,457,539	**€614,385**	€172,375	€442,010
France	5,154	6	1,809,993	€9,000	€27,000	€6,334,976	€18,039,000	€15,866,484	€24,409,976	**€8,543,491**	€6,313,650	€2,229,841
Germany	5,837	517	1,280,256	€775,500	€2,326,500	€4,480,896	€20,429,500	€16,807,438	€28,012,396	**€11,204,958**	€8,171,800	€3,033,158
Greece	633	406	194,500	€609,000	€1,827,000	€680,750	€2,215,500	€3,732,575	€5,332,250	**€1,599,675**	€664,650	€935,025
Hungary	527	69	153,402	€103,500	€310,500	€536,907	€1,844,500	€1,118,163	€2,795,407	**€1,677,244**	€1,106,700	€570,544
Ireland	288	28	178,421	€42,000	€126,000	€624,474	€1,008,000	€1,170,308	€1,800,474	**€630,166**	€352,800	€277,366
Italy	7,331	263	1,092,406	€394,500	€1,183,500	€3,823,421	€25,658,500	€21,741,945	€31,059,921	**€9,317,976**	€7,697,550	€1,620,426
Latvia	101	58	28,979	€87,000	€261,000	€101,427	€353,500	€281,024	€802,927	**€521,902**	€229,775	€292,127
Lithuania	98	47	47,122	€70,500	€211,500	€164,927	€343,000	€355,467	€789,927	**€434,460**	€188,650	€245,810
Luxembourg	76	57	8,369	€85,500	€256,500	€29,292	€266,000	€318,646	€637,292	**€318,646**	€133,000	€185,646
Malta	26	25	14,865	€37,500	€112,500	€52,028	€91,000	€131,862	€293,028	**€161,165**	€50,050	€111,115
Netherlands	842	844	413,958	€1,266,000	€3,798,000	€1,448,853	€2,947,000	€8,040,875	€9,459,853	**€1,418,978**	€442,050	€976,928
Poland	4,406	549	741,928	€823,500	€2,470,500	€2,596,748	€15,421,000	€10,655,874	€21,311,748	**€10,655,874**	€7,710,500	€2,945,374
Portugal	987	292	212,850	€438,000	€1,314,000	€744,975	€3,454,500	€2,678,164	€5,951,475	**€3,273,311**	€1,899,975	€1,373,336
Romania	1,051	108	303,170	€162,000	€486,000	€1,061,095	€3,678,500	€2,155,038	€5,387,595	**€3,232,557**	€2,207,100	€1,025,457
Slovakia	548	37	81,456	€55,500	€166,500	€285,096	€1,918,000	€970,038	€2,425,096	**€1,455,058**	€1,150,800	€304,258
Slovenia	254	109	37,819	€163,500	€490,500	€132,367	€889,000	€670,147	€1,675,367	**€1,005,220**	€533,400	€471,820
Spain	8,108	1,345	1,112,256	€2,017,500	€6,052,500	€3,892,896	€28,378,000	€30,255,672	€40,340,896	**€10,085,224**	€7,094,500	€2,990,724
Sweden	1,576	52	195,323	€78,000	€234,000	€683,631	€5,516,000	€5,209,304	€6,511,631	**€1,302,326**	€1,103,200	€199,126
EU-27 MS	**44,354**	**5,988**	**9,089,015**	**€8,982,000**	**€26,946,000**	**€31,811,553**	**€155,239,000**	**€318,549,861**	**€222,978,553**	**€84,428,692**	**€59,472,525**	**€24,956,167**

TOTAL MARGINAL ANNUAL	€84,428,692

Cost of verification software (Option A – EU DI Wallet and Option B – Europass Wallet)

Infrastructure (EU reference verifier; national deployment under Option A only) has no baseline: nobody builds this absent SPI, so the gross cost is the full marginal cost. Verification A's reference verifier costs €1,500,000 one-off and €100,000/year to maintain . Verification B adapts the existing EDC verifier for €500,000 one-off and €450,000/year (€125,000 verifier maintenance, €100,000 first-line support, €100,000 second-line support, €125,000 business support) - both real figures from the EDC team.

Table 28: Cost of verification software

	Deployment one-off	Operation annual
Option A (EU DI Wallet)	**€7,560,000**	**€1,890,000**
+ EU reference verifier	**€1,500,000**	**€100,000**
Option B (Europass Wallet)	**€500,000**	**€450,000**

Cost savings of verification for employers

Manpower is the genuine baseline-vs-option calculation, CROSS-BORDER ONLY - domestic verification is out of scope entirely. Every rate here is framed as an EMPLOYER cost, since it is employers who bear the manpower cost of checking a credential. For options 1, 2, and 3, considering two ranges of cross border movement a set of variables were taken into consideration. First, we need to take into consideration the following ITEMS:

A – Qualifications Prices (in €) for the 3 policy options
- Option 1 New (3) Historical (20) Baseline (103)
- Option 2 New (3) Historical (20) Baseline (103)
- Option 3 New (10) Historical (20) Baseline (103)

B – The ranges of cross boarder movement of worker
- 277530 (higher)
- 220110 (lower)

C – Adopted Wallets
- EUDI Wallet (options 1 and 2)
- EUROPASS (option 3)

In the table, the adopted wallet represents verifications requests dispersion throughout out the established period of 10 years. The column NEW represents the % adopted for the new qualification's requests. The column ≤10 represents the 10 years backlog and column >10 represents qualifications requests outside the backlog period. Therefore, for the historical a fixed percentage of 15% was considered for the 10 years dispersion, meaning this that in parallel with the new qualifications, 15% of the requests would be related to historical qualifications withing the backlog period, while a variable x% was considered for qualifications outside the considered 10 years backlog. The example (table 25) demonstrates an expected relation between the increase of the requests for new qualifications with the

decrease of qualifications beyond the 10 years backlog. A discount factor of 1.03 was considered for the period of adoption and the baseline remains constant. The Cost Saving column illustrates the result of {baseline – (new + historical qualification)} requests.

The table below (with the full representation of the 3 options) represents the output for policy option 1,2 and 3 (according to the explained parameters and logic) considering the **upper range (277530)** for cross border movement.

Table 29: Cost savings of Verification for employers

Crossborder volume: 277530

Discount Factor 1.03

Qualifications

New € **3.00**

Historical € **20.00**

Baseline € **103**

Policy Option 1

Adopted (wallet)	Year	New	Historical ≤10	Historical >10	New	Historical	Baseline	CostSaving/Y	Discount Factor	CostSaving/Y
									1.030	
									1.0609	
									1.0927	
0	1	5%	35%	60%	€ -	€ -	€ -	€ -	1.1255	€ -
0	2	10%	35%	55%	€ -	€ -	€ -	€ -	1.1593	€ -
55506	3	15%	35%	50%	€ 24,977.70	€ 943,602.00	€ 5,712,677.52	€ 4,744,097.82	1.1941	€ **770,990.58**
111012	4	20%	35%	45%	€ 66,607.20	€ 1,776,192.00	€ 11,425,355.04	€ 9,582,555.84	1.2299	€ **1,791,061.03**
138765	5	25%	35%	40%	€ 104,073.75	€ 2,081,475.00	€ 14,281,693.80	€ 12,096,145.05	1.2668	€ **2,547,336.45**
166518	6	30%	35%	35%	€ 149,866.20	€ 2,331,252.00	€ 17,138,032.56	€ 14,656,914.36	1.3048	€ **3,423,609.95**
194271	7	35%	35%	30%	€ 203,984.55	€ 2,525,523.00	€ 19,994,371.32	€ 17,264,863.77	1.3439	€ **4,418,183.70**
208148	8	40%	35%	25%	€ 249,777.60	€ 2,497,776.00	€ 21,422,592.16	€ 18,675,038.56	1.3842	€ **5,183,793.36**
208148	9	45%	35%	20%	€ 280,999.80	€ 2,289,628.00	€ 21,422,592.16	€ 18,851,964.36	1.4258	€ **5,629,575.86**
208148	10	50%	35%	15%	€ 312,222.00	€ 2,081,480.00	€ 21,422,592.16	€ 19,028,890.16	1.4685	€ **6,071,141.91**
				subtotal	€ **1,392,508.80**	€ **16,526,928.00**				
				total		€ **17,919,436.80**	€ **132,819,906.72**	€ **114,900,469.92**		
				CostSaving			€ **114,900,469.92**			
				Discount						€ **29,835,692.83**
				CostSavingAfterDiscount				€ **85,064,777.09**		

Crossborder volume: 277530

Discount Factor 1.03

Qualifications

New € **3.00**

Historical € **20.00**

Baseline € **103**

Policy Option 2

Adopted (wallet)	Year	New	Historical ≤10	Historical >10	New	Historical	Baseline	CostSaving/Y	Discount Factor	CostSaving/Discount
									1.030	
									1.0609	
									1.0927	
0	1	5%	35%	60%	€ -	€ -	€ -	€ -	1.1255	€ -
0	2	10%	35%	55%	€ -	€ -	€ -	€ -	1.1593	€ -
55506	3	15%	35%	50%	€ 83,259.00	€ 555,060.00	€ 5,712,677.52	€ 5,074,358.52	1.1941	€ **824,663.15**
111012	4	20%	35%	45%	€ 183,169.80	€ 999,108.00	€ 11,425,355.04	€ 10,243,077.24	1.2299	€ **1,914,518.09**
138765	5	25%	35%	40%	€ 249,777.00	€ 1,110,120.00	€ 14,281,693.80	€ 12,921,796.80	1.2668	€ **2,721,211.08**
166518	6	30%	35%	35%	€ 324,710.10	€ 1,165,626.00	€ 17,138,032.56	€ 15,647,696.46	1.3048	€ **3,655,040.07**
194271	7	35%	35%	30%	€ 407,969.10	€ 1,165,626.00	€ 19,994,371.32	€ 18,420,776.22	1.3439	€ **4,713,988.73**
208148	8	40%	35%	25%	€ 468,333.00	€ 1,040,740.00	€ 21,422,592.16	€ 19,913,519.16	1.3842	€ **5,527,569.23**
208148	9	45%	35%	20%	€ 499,555.20	€ 832,592.00	€ 21,422,592.16	€ 20,090,444.96	1.4258	€ **5,999,411.08**
208148	10	50%	35%	15%	€ 530,777.40	€ 624,444.00	€ 21,422,592.16	€ 20,267,370.76	1.4685	€ **6,466,277.48**
				subtotal	€ **2,747,550.60**	€ **7,493,316.00**				
				total		€ **10,240,866.60**	€ **132,819,906.72**	€ **122,579,040.12**		
				CostSaving			€ **122,579,040.12**			
				Discount						€ **31,822,678.90**
				CostSavingAfterDiscount				€ **90,756,361.22**		

Crossborder volume: 277530

					Discount Factor		1.03											
					Qualifications													
					New	**€**	**10.00**											
					Historical	**€**	**20.00**											
	Policy Option3				Baseline	**€**	**103**									**Discount Factor**	**CostSaving/Discount**	
																1.030		
			Historical													1.0609		
Adopted (wallet)	**Year**	**New**	**≤10**	**>10**		**New**		**Historical**		**Baseline**		**CostSaving/Y**				1.0927		
0	1	5%	35%	60%	€	-	€	-	€	-	€	-				1.1255	€	-
0	2	10%	35%	55%	€	-	€	-	€	-	€	-				1.1593	€	-
27753	3	15%	35%	50%	€	41,629.50	€	471,801.00	€	2,856,338.76	€	2,342,908.26				1.1941	€	**380,759.48**
55506	4	20%	35%	45%	€	111,012.00	€	888,096.00	€	5,712,677.52	€	4,713,569.52				1.2299	€	**881,006.16**
69383	5	25%	35%	40%	€	173,457.50	€	1,040,745.00	€	7,140,898.36	€	5,926,695.86				1.2668	€	**1,248,107.42**
83259	6	30%	35%	35%	€	249,777.00	€	1,165,626.00	€	8,569,016.28	€	7,153,613.28				1.3048	€	**1,670,964.37**
97136	7	35%	35%	30%	€	339,976.00	€	1,262,768.00	€	9,997,237.12	€	8,394,493.12				1.3439	€	**2,148,201.87**
104074	8	40%	35%	25%	€	416,296.00	€	1,248,888.00	€	10,711,296.08	€	9,046,112.08				1.3842	€	**2,511,008.24**
104074	9	45%	35%	20%	€	468,333.00	€	1,144,814.00	€	10,711,296.08	€	9,098,149.08				1.4258	€	**2,716,890.37**
104074	10	50%	35%	15%	€	520,370.00	€	1,040,740.00	€	10,711,296.08	€	9,150,186.08				1.4685	€	**2,919,354.61**
				subtotal	**€**	**2,320,851.00**	**€**	**8,263,478.00**										
				total			**€**	**10,584,329.00**	**€**	**66,410,056.28**	**€**	**55,825,727.28**						
				CostSaving					**€**	**55,825,727.28**								
				Discount													€	**14,476,292.51**
				CostSavingAfterDiscount							€	**41,349,434.77**						

Cost for MS to issue historical qualifications

Historical qualifications represent a cost of the MS in terms of issuance. For options 1, 2, and 3, considering two ranges of cross border movement a set of variables were taken into consideration. First, we need to take into consideration the following ITEMS:

A – Historical Qualifications Prices (in €) for the 3 policy options
- Historical (3.5) within the 10 years backlog (300) beyond the 10 years backlog

B – The ranges of cross boarder movement of worker
- 277530 (higher)
- 220110 (lower)

C – Adopted Wallets
- EUDI Wallet (options 1 and 2)
- EUROPASS (option 3)

In the table, the adopted wallet represents verifications requests dispersion throughout out the established period of 10 years for historical classifications considered under two dimensions, within and beyond the 10 years backlog period. The column NEW represents the % adopted for the new qualification's requests (not relevant in the case of historical costs calculations and only displayed for mathematical proportions). The column ≤10 represents the 10 years backlog and column >10 represents qualifications requests outside the backlog period. Therefore, for the ≤10 a fixed percentage of 35% was considered for the 10 years dispersion, meaning this that in parallel with the >10, 15% of the requests would be related to historical qualifications withing the backlog period, while a variable x% was considered for qualifications outside the considered 10 years backlog. The examples (table 26) demonstrate an expected relation between the increase of the requests for new qualifications with the decrease of qualifications beyond the 10 years backlog which as a considerable impact in the costs with historical qualifications for ALL 3 options, being more relevant the impact on policy option **2**. A value discount rate factor of 1.03 was considered for the period of adoption, illustrated by the Value Discount Rate column.

The difference between the policies resides in the manner historical is interpreted. For policy options 1 and 3, the difference resides solely in the dispersion (adopted wallet) because the prices are the same. Therefore, the calculation will be result of {Dispersions * (>10 + ≤10} * price considered for the within backlog period}. As for Option 2, the percentage considered for the within backlog period will be multiplied by the lower price while the percentage considered for the beyond 10 years backlog will be multiplied by the higher price. Hence for both ranges, policy option **2** represents the lowest cost for the MS.

The table below (with the full representation of the 3 options) represents the output for policy option 1,2 and 3 (according to the explained parameters and logic) considering the upper range for cross border movement.

Table 30: Historical Qualifications Cost

						Qualifications Price (reference $values)							
						>10	**€**	**300.00**					
						≤10	€	3.50					
						Compour	€	1.03					
					Crossborder volume: 277530								
	Policy Option 1								**Compound factor**		**Discounted cost**		**Discount adjustment**
									1.030				
				Historical					1.0609				
Adopted (wallet)	**Year**	**New**	**≤10**	**>10**		**New**		**Historical**	1.0927				
0	1	5%	35%	60%	**€**	-	€	-	1.1255	€	-	€	-
0	2	10%	35%	55%	**€**	-	€	-	1.1593	€	-	€	-
55506	3	15%	35%	50%	**€**	-	€	14,154,030.00	1.1941	€	11,853,777.29	€	2,300,252.71
111012	4	20%	35%	45%	**€**	-	€	26,642,880.00	1.2299	€	21,663,099.57	€	4,979,780.43
138765	5	25%	35%	40%	**€**	-	€	31,222,125.00	1.2668	€	24,647,033.79	€	6,575,091.21
166518	6	30%	35%	35%	**€**	-	€	34,968,780.00	1.3048	€	26,800,658.10	€	8,168,121.90
194271	7	35%	35%	30%	**€**	-	€	37,882,845.00	1.3439	€	28,188,394.44	€	9,694,450.56
208148	8	40%	35%	25%	**€**	-	€	37,466,640.00	1.3842	€	27,066,697.90	€	10,399,942.10
208148	9	45%	35%	20%	**€**	-	€	34,344,420.00	1.4258	€	24,088,485.18	€	10,255,934.82
208148	10	50%	35%	15%	**€**	-	€	31,222,200.00	1.4685	€	21,260,798.93	**€**	**9,961,401.07**
				Total (undiscounted)	**€**	-	**€**	**247,903,920.00**		**€**	**185,568,945.21**		
				Total discount adjustment								**€**	**62,334,974.79**
				Total (discounted / NPV)			**€**	**185,568,945.21**					

						Qualifications Price (reference $values)							
						>10	**€**	**300.00**					
						≤10	€	3.50					
						Compour	€	1.03					
					Crossborder volume: 277530								
	Policy Option 2								**Compound factor**		**Discounted cost**		**Discount adjustment**
									1.030				
				Historical					1.0609				
Adopted (wallet)	**Year**	**New**	**≤10**	**>10**		**New**		**Historical**	1.0927				
0	1	5%	35%	60%	**€**	-	€	-	1.1255	€	-	€	-
0	2	10%	35%	55%	**€**	-	€	-	1.1593	€	-	€	-
55506	3	15%	35%	50%	**€**	-	€	**8,393,894.85**	1.1941	€	7,029,754.79	€	1,364,140.06
111012	4	20%	35%	45%	**€**	-	€	**15,122,609.70**	1.2299	€	12,296,065.58	€	2,826,544.12
138765	5	25%	35%	40%	**€**	-	€	**16,821,787.13**	1.2668	€	13,279,274.09	€	3,542,513.03
166518	6	30%	35%	35%	**€**	-	€	**17,688,374.55**	1.3048	€	13,556,666.22	€	4,131,708.33
194271	7	35%	35%	30%	**€**	-	€	**17,722,371.98**	1.3439	€	13,187,109.14	€	4,535,262.83
208148	8	40%	35%	25%	**€**	-	€	**15,866,081.30**	1.3842	€	11,461,994.71	€	4,404,086.59
208148	9	45%	35%	20%	**€**	-	€	**12,743,861.30**	1.4258	€	8,938,287.91	€	3,805,573.39
208148	10	50%	35%	15%	**€**	-	€	**9,621,641.30**	1.4685	€	6,551,869.54	€	3,069,771.76
				Total (undiscounted)	**€**	-	**€**	**113,980,622.10**		**€**	**86,301,021.98**		
				Total discount adjustment								**€**	**27,679,600.12**
				Total (discounted / NPV)			**€**	**86,301,021.98**					

						Qualifications Price (reference $values)							
						>10	**€**	**300.00**					
						≤10	€	3.50					
						Compour	€	1.03					
				Crossborder volume: 277530									
	Policy Option 3									**Compound factor**		**Discounted cost**	**Discount adjustment**
										1.030			
				Historical						1.0609			
Adopted (wallet)	**Year**	**New**	**≤10**	**>10**		**New**		**Historical**		1.0927			
0	1	5%	35%	60%	**€**	-	**€**	-		1.1255	€	-	€ -
0	2	10%	35%	55%	**€**	-	**€**	-		1.1593	€	-	€ -
27753	3	15%	35%	50%	**€**	-	**€**	**7,077,015.00**		1.1941	€	5,926,888.65	€ 1,150,126.35
55506	4	20%	35%	45%	**€**	-	**€**	**13,321,440.00**		1.2299	€	10,831,549.78	€ 2,489,890.22
69383	5	25%	35%	40%	**€**	-	**€**	**15,611,175.00**		1.2668	€	12,323,605.70	€ 3,287,569.30
83259	6	30%	35%	35%	**€**	-	**€**	**17,484,390.00**		1.3048	€	13,400,329.05	€ 4,084,060.95
97136	7	35%	35%	30%	**€**	-	**€**	**18,941,520.00**		1.3439	€	14,094,269.77	€ 4,847,250.23
104074	8	40%	35%	25%	**€**	-	**€**	**18,733,320.00**		1.3842	€	13,533,348.95	€ 5,199,971.05
104074	9	45%	35%	20%	**€**	-	**€**	**17,172,210.00**		1.4258	€	12,044,242.59	€ 5,127,967.41
104074	10	50%	35%	15%	**€**	-	**€**	**15,611,100.00**		1.4685	€	10,630,399.46	€ 4,980,700.54
				Total (undiscounted)	**€**	-	**€**	**123,952,170.00**			**€**	**92,784,633.96**	
				Total discount adjustment									**€ 31,167,536.04**
				Total (discounted / NPV)			**€**	**92,784,633.96**					

1.1. Assumptions on the number of non-NQF micro-credentials providers

The EU Council Recommendation deliberately defines providers very broadly, including:

- education and training organisations,
- employers,
- social partners,
- civil society organisations,
- public employment services,
- and other actors issuing credentials for formal and non-formal learning.

It is important to avoid double counting for formal education and training institutions (such as higher education or VET) because they are already counted as issuers of qualification, even if many of them may also issue micro-credentials.

No official EU inventory exists for private and non-formal micro-credential issuers. Cedefop's mapping study[172] explicitly states that EU-level data are lacking because of the diversity of providers and national systems. Any estimate must necessarily be based on modelling rather than direct enumeration.

[172] Cedefop (2022). *Microcredentials for labour market education and training: first look at mapping microcredentials in European labour-market-related education, training and learning: take-up, characteristics and functions*. Luxembourg: Publications Office. Cedefop research paper, No 87. http://data.europa.eu/doi/10.2801/351271

The Lifelong Learning Platform (LLLP)[173] alone reports that **its member networks collectively represent more than 60,000 educational institutions and associations across formal, non-formal and informal learning.**

The LLLP does not provide a breakdown of these organisations by type. Based on the composition of its membership, it is reasonable to assume that approximately 20–33% are formal education and training institutions operating within recognised qualification systems (for example, EURASHE, FEDE or EfVET). This would leave an approximate estimated of **45,000** organisations in the broader non-formal and informal learning ecosystem.

Besides, the scale of the employer training ecosystem is enormous. Eurostat[174] reports that **67.4% of EU enterprises with at least 10 employees were "training enterprises" in 2020**. This does **not** mean that 67.4% issue micro-credentials, but it demonstrates that the pool of potential non-formal learning providers extends far beyond the LLLP's **45,000** organisations.

1.2. Assumptions on the evolution of new, recent and historical qualifications

To estimate the costs and benefits associated with the issuance and verification of digital attestations, it is necessary to determine how the qualifications presented by EU movers requiring cross-border recognition are distributed between newly issued qualifications, qualifications issued during the previous 10 years, and older historical qualifications. This distinction is required because the policy options apply different cost assumptions depending on whether a qualification is already part of the digital trust framework or needs to be digitised as a historical qualification. In particular, newly issued qualifications benefit from cost-free issuance, while under PO2 qualifications issued during the previous 10 years are also brought into the trust framework through the backlog exercise and therefore benefit from lower issuance and verification costs. Historical qualifications remain outside the trust framework and entail higher digitisation and verification costs.

In the absence of EU-wide data identifying the vintage of qualifications used specifically for cross-border recognition, the model applies a proxy-based approach to estimate their distribution over the appraisal period. The initial allocation is calibrated using the age profile of EU movers. In 2024, people aged 15–34 represented around 36% of the EU mover population[175]. As younger movers are more likely to hold recently acquired qualifications, this provides an indication of the share of movers likely to rely on qualifications obtained relatively recently. However, the category of recent qualifications is not limited to young movers, as workers of other age groups may also have obtained qualifications through further education, professional training or reskilling activities during the previous decade. On this basis, the model assumes that, at the beginning of the appraisal period, approximately 40% of qualifications presented by movers correspond either to newly issued qualifications or to qualifications issued during the previous 10 years, while the remaining share corresponds to older historical qualifications.

The distribution of qualification vintages is then projected over the 10-year appraisal period by considering the expected replacement of qualification cohorts among mobile workers. The share of newly issued qualifications increases progressively over time, reflecting the accumulation of qualifications issued after the implementation of the initiative. Conversely, the share of historical qualifications decreases as older qualification cohorts are gradually replaced. The share of qualifications issued during the previous 10 years is assumed to remain

[173] Lifelong Learning Platform | Civil Society
[174] Share of training enterprises decreases in 2020 - News articles - Eurostat
[175] Annual report on intra-EU labour mobility - Employment, Social Affairs and Inclusion

broadly stable over the period considered, as these qualifications represent a relatively recent cohort of qualifications whose holders are expected to remain active in the labour market throughout the appraisal period. The resulting assumptions are presented in the table below.

Year	New qualifications	Historical qualifications	
		Within the 10 years backlog	Previous to the 10 years backlog
Y1	5%	35%	60%
Y2	10%	35%	55%
Y3	15%	35%	50%
Y4	20%	35%	45%
Y5	25%	35%	40%
Y6	30%	35%	35%
Y7	35%	35%	30%
Y8	40%	35%	25%
Y9	45%	35%	20%
Y10	50%	35%	15%

For PO2, this evolution also captures the effect of the backlog exercise, whereby qualifications issued during the previous 10 years are incorporated into the trust framework from the outset. Consequently, the share of qualifications benefiting from the lower-cost verification process is higher under PO2 than under the other policy options, as it includes both newly issued qualifications and the stock of recent qualifications digitised through the backlog. The table therefore provides the basis for allocating the annual number of movers requiring qualification verification across the different cost categories used in the impact assessment model.

1.3. Sensitivity for the 10 years backlog in Policy Option 2

There are three types of costs or cost savings that are affected by the 10 years backlog that is part of PO2:

- **Cost for MS to have, connect and maintain national registries of qualifications, awarding bodies and accreditation.** Here it is where an extra effort is required to also include past 10 years' qualifications in the same trust framework as new ones.
- **Cost for MS to issue past qualifications.** Once the 10-year backlog of qualifications is included in the trust framework, issuing a digital attestation for these qualifications upon request becomes automatic, so the marginal cost of issuance for MS is very low (€3.5 per attestation) compared to the much higher cost of €300 needed to gather and compile all the necessary information for a past qualification to be digitalised.
- **Cost savings for employers to verify the authenticity of qualifications.** Although both are digital attestations, those issued from within the trust framework are automatically verifiable, so their marginal verification cost for employers is only €3. Digital attestations for historical qualifications outside the trust framework, by contrast, may include embedded information (such as scanned PDF documents) that requires manual human verification, bringing their verification cost to an estimated €20.

With the 10-year backlog, an estimated share of past qualifications benefits from the cheaper unit cost of issuance and verification. Without the 10-year backlog, however, all past qualifications are issued and verified at the higher unit cost.

Table 31: Sensitivity for the 10 years backlog

Costs		With the 10 years backlog	Without the 10 years backlog
Cost for MS to have, connect and maintain **national registries** of qualifications, awarding bodies and accreditation	One-off costs	3.1	2.5
	Annual costs	1.4	0.9
Cost for MS to **issue past qualifications**	Recurrent costs over 10 years (discounted)	68.4 – 86.3	147.2 – 185.6
Cost savings for employers to **assess qualifications**	Recurrent costs over 10 years (discounted)	67.5 – 85.1	72 – 90.8

Figures are expressed in millions of euros.

2. For the calculations of cost-savings for workers and issuers of qualifications

Cost saving for workers to get comparability statements

Total cost = Number of recognition requests/year (reduced by scenario) × Cost of qualification assessment process (reduced by scenario)

Benefit = Baseline total cost − Scenario total cost

Variable	Value	Source / Assumption
Number of requests/year (baseline)	90,000 (Lower bound) or	90,000: extrapolated from the ENIC-NARIC survey on comparability statements processed (see the key figures in the baseline).
Cost of qualification assessment process (baseline)	€125 - 375	Based on public-consultation responses on individual recognition costs
Reduction in requests/year (PO1/PO2/PO3)	62% / 60% / 45%	Same "Reduction in share of employers using recognition " factor as used in Benefit 3.
Reduction in cost per assesment	20% / 20% /	A conservative 20% reduction (15% for PO3 based on the reduced expected impact of this option) is

Variable	Value	Source / Assumption
(PO1/PO2/PO3)	15%	assumed, based on the general expectation expressed in the consultation that digitalisation will simplify procedures, though no further data is available to quantify this precisely.

	Number of requests per year	Cost of qualification assessment process Lower bound: 125	Total costs	Benefit
Baseline	90,000.00	125	**11,250,000**	**0**
PO1	34,200.00	100	**3,420,000**	**7,830,000**
PO2	36,000.00	100	**3,600,000**	**7,650,000**
PO3	49,500.00	106	**5,259,375**	**5,990,625**

	Number of requests per year	Cost of qualification assessment process Upper bound: 375	Total costs	Benefit
Baseline	90,000.00	375	**33,750,000**	**0**
PO1	34,200.00	300	**10,260,000**	**23,490,000**
PO2	36,000.00	300	**10,800,000**	**22,950,000**
PO3	49,500.00	319	**15,778,125**	**17,971,875**

These figures are then further adjusted by the gradual uptake of the wallets and by the discount rate to present the cumulative values over the chosen period.

Costs saving for issuers to verify qualifications

Total cost = Number of education and training institutions × Share of issuers contacted (survey) × Average contacts per year × Days spent per request × Average daily wage

Benefit = Baseline total cost − Scenario (PO1/PO2/PO3) total cost

Variable	Value	Source / Assumption
Number of education and training institutions	32,788 – 44,354	Explained in annex 8(7).
Share of issuers contacted	50.5%	Qualification Issuers survey: 290 of 574 respondents (50.5%) reported being contacted by any third party (employer, recognition authority, or

Variable	Value	Source / Assumption
		other) to verify diploma authenticity.
Average contacts per year (baseline)	16 (Lower bound) / 30 (Upper bound)	Annualised from the survey's contact-frequency categories (once a week or more / several times per month / a few times per year / once a month / less than once a year). 16 and 30 correspond to the lower- and higher-end annualised estimates depending on how the open-ended "weekly or more" category is interpreted.
Days per request	0.25 days (2 hours ÷ 8-hour day)	An estimated average of 2 hours of staff time per verification request. Estimated using expert judgement, consistent with the EU Standard Cost Model approach to administrative-burden estimation. As an order-of-magnitude cross-check, this is roughly 10% of the SME Panel's median 18-hour estimate for the full employer-side recognition process, plausible for a single verification response rather than a full assessment.
Average daily wage	€318.73	Annual public-sector wage (€80,000) ÷ 251 working days.
Reduction in contacts (PO1/PO2/PO3)	50% / 45% / 30%	This estimate reflects the broad agreement among stakeholders consulted that the digitalisation option, further enhanced by support measures, would simplify existing processes and reduce the need to acquire additional information on qualifications.

	Number of issuers of qualifications Lower bound: 32,708	**Share of issuers requested to provide information about qualifications (from survey)**	**Average contacts per year** Lower bound: 16 contacts	**Days spent per request**	**Average daily wage**	**Total costs**	**Benefit**
Baseline	32,788	50.5%	16.00	0.25	319	**21,129,724**	**0**
PO1	32,788	50.5%	1.60	0.25	319	**2,110,972**	**18,998,752**
PO2	32,788	50.5%	1.60	0.25	319	**2,110,972**	**18,998,752**
PO3	32,788	50.5%	4.80	0.25	319	**6,332,917**	**17,776,807**

	Number of issuers of qualifications Upper bound: 44,354	Share of issuers requested to provide information about qualifications (from survey)	Average contacts per year Upper bound: 30 contacts	Days spent per request	Average daily wage	Total costs	Benefit
Baseline	44,354	50.5%	30.00	0.25	319	**53,542,876**	**0**
PO1	44,354	50.5%	3.00	0.25	319	**5,354,288**	**48,188,589**
PO2	44,354	50.5%	3.00	0.25	319	**5,354,288**	**48,188,589**
PO3	44,354	50.5%	9.00	0.25	319	**16,062,863**	**37,480,014**

These figures are then further adjusted by the gradual uptake of the wallets and by the discount rate to present the cumulative values over the chosen period.

Costs saving for issuers of non-NQF micro-credentials to verify

Total cost = Number of issuers of qualifications of non-NQF micro-credentials × Share of issuers requested to provide information about qualifications (from survey) × Average contacts per year × Days spent per request × Average daily wage

Benefit = Baseline total cost − Scenario (PO1/2/3) total cost

Variable	Value	Source / Assumption
Number of issuers of qualifications of non-NQF micro-credentials	45,000	Estimated as explained above. This coverage is necessarily a lower limit on the true number of affected institutions, as it is not possible to fully estimate the actual number of issuers of micro-credentials.
Share of issuers requested to provide information about qualifications (from survey)	39%	69 respondents to the survey of Issuers of qualifications indicated they issue Adult and Continuing Education Certificates, Micro-credentials, or Professional Licenses/Certifications. Of these, 27 indicated they had been contacted to provide information about the micro-credentials issued (27/69 ≈ 39%).
Average contacts per year (baseline, lower bound)	10 contacts	Estimated average of ~10 contacts/year (weighted), using the same annualisation convention as Benefit 1 (Issuers of Qualifications): weekly-or-more = 52, several times/month = 36, a few times/year = 4, once/month = 12, less than once/year = 0.5.
Days spent per request	0.25 days (2 hours ÷ 8-hour day)	Same assumption as Benefit 1 (Issuers of Qualifications).

Variable	Value	Source / Assumption
Average daily wage	€319	Consistent with the €80,000/year public-sector wage basis used in Benefit 1 (€80,000 ÷ 251 working days ≈ €318.73).

	Number of issuers of qualifications	Share of issuers requested to provide information about qualifications (from survey)	Average contacts per year Lower bound: 10 contacts	Days spent per request	Average daily wage	Total costs	Benefit
Baseline	45,000.00	39%	10.00	0.25	319	**14,030,833**	**0**
PO1	45,000.00	39%	1.00	0.25	319	**1,403,083**	**12,627,750**
PO2	-	39%	1.00	0.25	319	**0**	**14,030,833**
PO3	45,000.00	39%	3.00	0.25	319	**4,209,250**	**9,821,583**

These figures are then further adjusted by the gradual uptake of the wallets and by the discount rate to present the cumulative values over the chosen period.

Annex 5: COMPETITIVENESS CHECK

1. Overview of impacts on competitiveness

Dimensions of Competitiveness	Impact of the initiative (++ / + / 0 / - / -- / n.a.)	References to sub-sections of the main report or annexes
Cost and price competitiveness	+	Section 6.1.2: Overall, the preferred Policy Option PO2 (digitalisation of NQF qualifications via the EUDI Wallet) is expected to contribute to facilitating labour mobility and better cross-border matching of labour supply and demand thanks to improving availability of information and faster verification of non-national qualifications, helping to address skills shortages, notably in critical sectors. In particular, the initiative will allow companies to more easily assess and trust non-national qualifications, reducing hiring time and costs when qualifications are a criterion for their recruitments process. A facilitated recruitment could have a positive, even if limited impact on their potential to expand, innovate and scale up.
International competitiveness	+	The preferred Policy Option' direct impact on international competitiveness is contained, but indirect benefits to broaden the EU talent pool are positive, including to better cope with situations of asymmetric shocks to the European labour market. An opportunity lies in the EU becoming a standard-setter for digital credentials, which could enhance its negotiating position in global skills recognition dialogues.
Capacity to innovate	+	Sections 6.1.2,: Overall, the preferred Policy Option is expected to have a modest but positive impact on innovation, primarily through improved management practices (e.g. hiring efficiency) which is expected to contribute to facilitating labour mobility, which is associated with firms' innovation potential. The preferred option is also expected to lead to better cross-border matching of labour supply and demand, both in regulated and non-regulated professions.
SME competitiveness	++	The impact on SME competitiveness is expected to be positive. The initiative reduces cost and administrative burden associated with assessing non-national credentials. See also annex 6: SME Check. ..

2. Synthetic assessment

The preferred Policy Option is expected to have small positive impacts on competitiveness and is overall anticipated to deliver positive effects for businesses across the EU. On cost and price competitiveness, the initiative is positive, since companies stand to benefit from reduced hiring time and administrative burden when assessing non-national qualifications, translating into incremental cost savings, the pass-through of which to prices remains limited and uncertain.

The impact on the international position of EU companies is directionally positive, insofar as improved access – even incremental - to a broader pool of human resources strengthens workforce flexibility. Any effect on innovation capacity is expected to be positive, both in terms of products, process stemming from the widen talent pool effect. and in relation to incremental organisational innovation, relating to the digitalisation of employees' qualification. With respect to SMEs, the initiative is expected to be net positive: while the absolute benefits of simplified credential assessment apply equally to firms of all sizes, smaller companies stand to gain proportionally more, given that the relative burden of navigating non-national qualifications, and the relative value of reducing it, is greater for businesses with limited HR capacity.

3. Competitive position of the most affected sectors

The Preferred Option is horizontal in nature, applying across all sectors and firm sizes rather than targeting specific industries. A dedicated sectoral analysis is therefore not warranted. However, certain sectors are likely to experience more pronounced effects given their higher reliance on mobile EU workers and greater exposure to cross-border recruitment.

Sectors facing acute skills and labour shortages, including construction, healthcare, hospitality, transport and manufacturing, are among those most likely to benefit from interoperable digital qualifications The digital and technology sector may also benefit indirectly from the preferred option, given its reliance on highly qualified mobile workers.

No sector is expected to face a competitive disadvantage as a result of the Preferred Option.

Annex 6: SME CHECK

1. Overview of impacts on SMEs

Relevance for SMEs
Based on SME filter and the ISG discussion, this initiative is relevant for SMEs[176]*.*

(1) IDENTIFICATION OF AFFECTED BUSINESSES AND ASSESSMENT OF RELEVANCE
Are SMEs directly affected? *(No)* **In which sectors?**
The preferred policy options (i.e. the digitalisation of all new NQFs qualifications (EQF levels 2-8), qualifications issued in the past 10 years automatically on demand and older qualifications on demand within a reasonable time as part of the European Digital Identity Wallet) is expected to directly affect SMEs across all sectors.
Estimated number of directly affected SMEs
The initiative is expected to contribute to make cross-border recruitment easier, which could increase the share of SMEs able to hire internationally. Survey evidence also suggests significant untapped demand: nearly half (49%) of SMEs have indicated that they would welcome better tools for assessing the competences of mobile workers within the EU[177]*. This points to considerable potential for a larger number of SMEs to benefit from the initiative in the future.*
Estimated number of employees in directly affected SMEs
The estimated number of job applicants affected (i.e. whose qualification has been verified by an employer intending to hire them) has been estimated between 220,110–277,530. It is not possible to establish how many of them were employed in SMEs.
Are SMEs indirectly affected? *(Yes)* **In which sectors? What is the estimated number of indirectly affected SMEs and employees?**
Yes. The initiative is expected to bring some indirect benefits related to a reduction of overqualification and skills mismatches (see section 6.1.4), which also affect SMEs.

(2) CONSULTATION OF SME STAKEHOLDERS
How has the input from the SME community been taken into consideration?

[176] https://ec.europa.eu/docsroom/documents/63274.

[177] European Commission (2023). European Year of Skills: Survey highlights skills shortages in small and medium-sized enterprises (SMEs) - Employment, Social Affairs and Inclusion.

A targeted consultation with SMEs – an SME panel – took place to gather input from the SME community. The panel ran from 11 February – 1 April 2026 and gathered responses from 159 SMEs across 18 EU MS (AT, BE, BG, CY, DE, EE, ES, EL, FI, FR, HU, IE, IT, PL PT, RO) and third countries (CH, TR). SMEs also responded to the public consultation, with 204 responses received across 23 EU MS (AT, BE, BG, CY, CZ, DE, DK, EL, ES, FI, FR, HR, HU, IE, IT, LT, LV, MT, NL, PO, PT, RO, SE) and 12 third countries (BA, BR, GE, GH, IS, MD, MK, PK, TZ, TN, TR, UA). In addition, social partners representing employers contributed to the study through the national-level stakeholder interviews (14 interviews), the call for evidence (24 contributions), the public consultation (41 responses), a dedicated Social Partner Hearing, focus groups (involvement in three focus groups), expert workshops (involvement in two expert workshops), and case studies (six interviews). Feedback from the consultations, case studies, and the SME panel in particular, indicates that administrative and bureaucratic burdens (e.g. obtaining work and residence permits, language barriers and difficulties in verifying and comparing skills and qualifications), as well as limited capacity and resources (e.g. lack of in-house expertise or dedicated HR staff, disproportionate verification or re-training costs) act as obstacles for SMEs to hire workers from other EU MS. Confidence levels among SMEs also fall significantly when assessing qualifications from other EU countries, primarily due to insufficient familiarity with foreign education systems, difficulty verifying the authenticity of qualifications, language barriers and a lack of clear information on equivalence and recognition procedures. Increased digitalisation of qualifications, including the take-up of digital tools and platforms, and clearer and trusted information on foreign qualifications were highlighted by consulted SMEs as areas for action.
Are SMEs' views different from those of large businesses? *No*
The consultations carried out for the study supporting the impact assessment of the Skills Portability Initiative did not identify any notable differences in the views of SMEs and those of large businesses.

(3) ASSESSMENT OF IMPACTS ON SMEs[178]
What are the estimated direct costs for SMEs of the preferred policy option*?* (*Fill in only if step 1 flags direct impacts)*
Qualitative assessment
The preferred option imposes no direct costs on SMEs, and not obligations for implementation.
Quantitative assessment
What are the estimated direct benefits/cost savings for SMEs of the preferred policy option[179]?
Qualitative assessment
The digitalisation of qualifications through the European Digital Identity Wallet generates

[178] The costs and benefits data in this annex are consistent with the data in annex 3.
[179] The direct benefits for SMEs can also be cost savings.

ongoing time savings on credential verification beyond the recruitment process, including for cross-border assignments, regulatory compliance and professional licensing. Businesses that regularly verify the credentials of mobile workers benefit from faster, standardised digital checks in place of manual, document-based procedures.

Quantitative assessment

The cost-savings for employers have been estimated as ranging from 72 to 90.8 million euros (present value, 2026-2040)
These figures cover all businesses; SME-specific shares cannot be disaggregated from the current model.

What are the indirect impacts of this initiative on SMEs? *(Fill in only if step 1 flags indirect impacts)*

SMEs are expected to benefit indirectly from the broader labour market improvements generated by the preferred option. However, given these indirect benefits cannot be quantified. Skills mismatch reduction accrues at society level as economy-wide GDP gains, reflecting higher labour productivity from better job matching and increased participation of qualified workers.

While these benefits are not allocated to specific stakeholder groups, businesses are the primary vehicle through which they are realised: better-matched workers, reduced recruitment friction and a deeper pool of available mobile labour may translate into productivity gains and hiring advantages at firm level. SMEs stand to benefit disproportionately from these improvements. As the consultations confirmed, SMEs are currently more exposed than large firms to skills and labour shortages, have less capacity to absorb the costs of suboptimal recruitment outcomes, and are less able to compete for mobile candidates from other EU MS under the current fragmented situation. In 2023, less than 15% of SMEs employed staff from other EU MS (as opposed to almost 35% of large companies).

A more fluid EU labour market therefore represents a structural competitive improvement for SMEs relative to their current position.

(4) MINIMISING NEGATIVE IMPACTS ON SMES

Are SMEs disproportionately affected compared to large companies? *No* **If yes, are there any specific subgroups of SMEs more exposed than others?**

Have mitigating measures been included in the preferred option/proposal?

No, as the effects of the preferred option on SMEs are positive and there are no running obligations or increased administrative burden, no mitigating measures are needed.

CONTRIBUTION TO THE 35% BURDEN REDUCTION TARGET FOR SMES

Are there any administrative cost savings relevant for the 35% burden reduction target for SMEs?

Yes, cost savings relative to the baseline as a result of lower costs credential verification contribute to the 35% burden reduction target.

Annex 7: EXPLANATION OF MAIN EU TOOLS SUPPORTING SKILLS PORTABILITY

1. Policies and tools for improving transparency and portability of qualifications and skills

The European Qualifications Framework

The backbone of EU transparency tools is the European Qualifications Framework (EQF), in place since 2008 (and reviewed in 2017). The EQF aims to increase the transparency, comparability and portability of people's qualifications. The EQF as a framework consists of 8 levels from basic (level 1) to advanced (level 8), based on learning outcomes (knowledge, skills, autonomy and responsibility). It operates as a translation tool between national qualifications frameworks.

As part of the EQF Recommendation, MS are invited to relate their national qualifications frameworks (NQFs) to the EQF, in order to establish a clear and transparent relationship between their national qualification levels and the eight EQF levels, in a process called referencing.

Given that the EQF is first and foremost a translation tool, qualifications are not directly included in the EQF. They are instead included in the NQFs, in line with applicable inclusion procedures by MS that need to be transparent, where their level and value abroad can be understood with reference to the eight EQF levels. Once an NQF has been referenced to the EQF, qualifications included in NQFs automatically receive an EQF level corresponding to the applicable NQF level. This translation becomes visible to employers and individuals when EQF levels are added to national certificates and diplomas and included in the NQF registers or databases.

EQF provides comparison of levels of qualifications and also information on the skills which are associated with the qualifications. Providing learning outcomes descriptions of qualifications through databases according to European guidelines for writing short learning outcomes descriptions (EQF-Europass project group, 2024) and linking them to Europass, are two major preconditions for developing a detailed and comprehensive European map of qualifications making qualifications and skills visible and understandable across borders, promoting education progression, lifelong learning and employability.

The referencing process aims to make the comparison framework robust and to build trust in qualification systems of other MS. For the referencing process MS need to prepare a detailed referencing report that follows the 10 EQF referencing criteria included in Annex III of the Recommendation, and which aim at ensuring coherence, transparency, quality and trust between qualifications in Europe. The referencing criteria relate to legal and political responsibility for the framework (1), link between the national and EQF levels (2), use of learning outcomes and how the framework is related to arrangements for validation of non-formal and informal learning (3), transparent procedures for inclusion of qualifications in the framework (4), the applicable quality assurance system(s) (5), the signed agreement by responsible quality assurance bodies (6), involvement of international experts (7), certification of the report by competent authorities (8), publication of NQF information (9), inclusion of EQF/NQF levels on diplomas/certification (10). The referencing is a peer reviewed process in which MS assess other MS referencing reports, considering their alignment with the EQF referencing criteria.

As NQF referencing reports represent a 'snapshot' in time and may become outdated in case of major changes in the MS education system the EQF Recommendation invites MS to review and update their referencing report when relevant. This aims to ensure that information included in the referencing reports remains accurate, as this directly influences the extent to which the NQF is trusted, and the extent to which the EQF is able to facilitate the comparability and portability of qualifications.

The objective of the EQF as a framework is to support both lifelong learning and employability. In a context of employment (including cross-border labour mobility), getting a job, or moving between jobs, requires qualifications and skills to be understood, fairly judged and correctly valued by employers and other labour market actors. The use of learning outcomes (knowledge, skills) to describe qualifications – and the inclusion of European and national qualifications levels on them – aims to make it easier for employers to interpret applicants' qualifications from other countries and institutions not known to them. It can facilitate understanding the level of each candidate, comparing their qualifications with national qualifications, understanding the relevance of those qualifications and seeing how the learning outcomes match the needs of the company or sector.

The Europass Framework

The Europass platform operates as a one-stop shop for skills and career management, with different skills, qualifications and labour mobility tools, including an e-portfolio with a smart CV, information on qualifications (from NQF registries) and learning opportunities (from national registries/databases) and an infrastructure for digital credentials (European Digital Credential for Learning infrastructure). The Europass platform is also the platform for the EQF, where the results of the referencing process are published and where information on qualifications can be found.

The Europass Decision stipulates that the Europass platform will contain information on qualifications and on qualifications frameworks. The MS provide this information and share it by interconnecting their NQF databases or registers with the Europass platform. The qualifications data available on Europass are also republished as open data on the EU open data portal.

The Europass framework also includes three supplements with a common structure and template: Diploma Supplements (higher education), Certificate Supplements (VET), and Europass Mobility (learning mobility). The supplements make it easier for e.g. employers or education and training providers to understand qualifications and their learning outcomes. They are usually available in the original language of the qualification and other useful languages (in most cases at least English). Thanks to their standardised format in presenting learning outcomes and learning achievements (for the diploma supplement and certificate supplement), they improve the transparency and comparability of qualifications in an international context.

The Diploma Supplement exists since 1997 and is a joint document between the European Commission, the Council of Europe and UNESCO. It is part of the Europass Framework but also of the European Higher Education Area. It is provided by higher education institutions. The template was last updated following an inter-ministerial agreement in 2018, under the Bologna Process. The inter-ministerial agreement refers to its digitalisation. Efforts to do so were undertaken in the context of the European Digital Credentials for Learning – before the EUDI wallet was adopted through the e-IDAS revision of 2024, but have not been implemented so far, due to high complexity, in particular caused by national law-based requirements to the Diploma Supplement going beyond the inter-ministerial agreement.

The Europass Certificate Supplement is a document accompanying VET or professional certificates issued by the competent authorities in each country. It aims to help employers, educational and training institutions, recognition bodies and other stakeholders understand the qualification's purpose, level, learning outcomes, and the corresponding national educational or training system. This document serves to improve qualifications transparency across borders and sectors, supporting employability and mobility. There is work ongoing to revise the template and considering its possible digitalisation.

Europass Mobility, first introduced in 2004, describes the skills acquired abroad on mobility experience for learning or work. Europass Mobility can help communicate the new skills and experiences acquired during a traineeship, volunteering or a learning period abroad in a comparable way. The Europass Mobility template was revised in 2024, bringing together Europass Mobility with the learning agreement model from Erasmus+, creating a single document for both pre- and post-mobility. While the pre-mobility document is available, this is not yet the case for the post mobility document, which the Commission aims to digitalise in the context of a revamped European Digital Credentials for Learning infrastructure.

European Skills, Competences, Qualifications, and Occupations (ESCO)

The European Skills, Competences, Qualifications, and Occupations (ESCO) is a European multilingual classification of skills, competences, and occupations, serving as a comprehensive dictionary to standardise terminology across 28 languages, facilitating alignment between skills, qualifications and labour market needs. By fostering a common language, ESCO helps bridge the communication gap between employment, education, and training sectors, enhancing job mobility across Europe. Through its standard, multilingual, vocabulary it has high potential to support the description of qualifications, in particular by linking learning outcomes descriptions of qualifications with ESCO concepts for knowledge and skills, including transversal skills. Like this ESCO improves qualification transparency and can help stakeholders describe, compare and interpret qualifications from different MS and sectors in a consistent and understandable way across Europe. ESCO can be used in digital tools and databases, making qualification information more structured, searchable and comparable across platforms and borders. The EQF and ESCO are therefore complementary. While the EQF provides a common reference point for qualification levels in Europe based on skills proficiency, ESCO provides a multilingual dictionary of skills terms and a European classification of occupations.

Micro-credentials, Validation of non-formal and informal learning, Quality assurance

The Council Recommendation on micro-credentials for lifelong learning and employability, adopted in 2022, aims to improve the quality, trust, and adoption of micro-credentials, making them more comparable and understandable across different countries and sectors. It contains a common definition, standards elements to describe micro-credentials, and contains European principles for the design and issuance of micro-credentials. It further encourages MS to support the quality and transparency of micro-credentials, where appropriate, including by integrating micro-credentials in national qualifications frameworks, which has been done by 9 MS.

The Council Recommendation on validation of non-formal and informal learning of 2012 asked MS to have in place arrangements for the validation of skills acquired through non-formal and informal learning, including work experience. The Recommendation distinguishes for states of validation, namely identification, documentation, assessment and certification. Not all validation processes complete all stages, and when they do, they can lead

to different outcomes such as exemption to training, a micro-credential, or partial or full qualifications, depending on country and case specific situations.

The Standards and Guidelines for Quality Assurance in the European Higher Education Area (**ESG**)[180] provide a framework for internal and external quality assurance in higher education, supporting trust and mobility across systems irrespective of the delivery mode.

The European Quality Assurance Reference Framework (**EQAVET**)[181] offers European wide framework to support quality assurance in vocational education and training (VET) across Europe.

2. Policies and tools for assessment and recognition of qualifications and skills for the purpose of employment

In majority of professions in the EU ("**non-regulated professions**"), qualifications obtained in other EU MS in principle do not require any formal assessments. Nevertheless, as explained further in the IA, in some cases employers or workers seek such formal assessments. In such cases, they may use procedures intended primarily for academic recognition. The **European Network of Information Centres (ENIC) and National Academic Recognition Information Centres in the European Union (NARIC) networks**[182] were established as network of centres for academic recognition of qualifications under the principles of the Convention on the Recognition of Qualifications concerning Higher Education in the European Region, also referred to as Lisbon Recognition Convention. ENIC-NARIC centres provide advice (and depending on the national situation may take decisions) on how foreign qualifications compare to national ones, typically resulting in statements of comparability, that can relate to access to higher education studies and sometimes also to labour market demands.

The situation is different in **regulated professions**, where the Professional Qualifications Directive establishes a common approach to the assessment of professional qualifications and so-called Competent Authorities carry out the formal recognition procedures. The applicable legal framework, process and actors are described in detail in the IA for Action 2 of the SPI.

European Employment Services (EURES)

The European Employment Services (EURES) is a cooperation network of (public and private) employment services designed to facilitate the free movement of workers within the European Economic Area (EEA). The main goals of EURES are to improve transparency and information on job opportunities as well as living and working conditions across borders, to provide assistance for job placements and recruitment across borders to facilitate cooperation between its member organisations and with stakeholders. The network has an online platform where employers can post vacancies and search for candidates. The data structure for the publication of vacancies includes qualification standards, which refer to the EQF levels. EURES includes a network of EURES Advisers who offer personalised support to job-seekers and interested workers, including help with job applications, recognition of qualifications, and relocation advice.

Public Employment Services (PES)

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[180] https://www.enqa.eu/esg-standards-and-guidelines-for-quality-assurance-in-the-european-higher-education-area/#

[181] EQAVET – European Commission

[182] ENIC is the European Network of Information Centres and NARIC are National Academic Recognition Information Centres in the European Union

Public Employment Services play a key role in skills assessment and portability across borders. Skills and qualifications assessment is a key activity of many PES in the context of a shift of the labour market towards skills-based profiling for which qualifications that better signal skills information do help. The PES Network aims to encourage cooperation between MS within the areas of PES responsibility, in order to contribute to the implementation of the Union's employment policies. The PES Network aims to compare PES performance through benchmarking, identify evidence-based good practices and foster mutual learning, promote the modernisation and strengthening of PES service delivery, and prepare inputs to the European Employment Strategy and the corresponding national labour market policies.

3. Instruments and legislation facilitating interoperable digitalisation of qualifications

The European Digital Credentials for Learning (EDC)

The EDC is a multilingual format for electronically sealed, digital presentations of learning credentials that is part of the Europass platform. The EDC Infrastructure includes an EDC Issuer and an EDC Viewer that are ready-to-use tools for building, issuing and viewing these digital credentials. The EDC infrastructure allows institutions or organisations to issue digital credentials directly to the Europass web wallet, a personal online space for storing credentials available in the My Library section of a person's Europass account. Individuals can securely store their credentials and share them to apply for jobs.

EDCs are signed using an electronic seal. The use of the seal is mandatory and informs the viewer of the credential about the origin of the credential. The electronic seal ensures the credential integrity. These seals can be acquired from Trusted Service Providers, who issue these electronic seals in line with the EU legal framework for electronic seals, the eIDAS Regulation. EDCs are subject to automatic authentication, and verification checks each time a credential is viewed, maintaining the trustworthiness of the document. These checks ensure that any modifications to the credential content, such as an attempt to change the recipient's name, are detected and directly visible when viewing the credential. EDCs are designed to promote cross-border recognition of credentials. To this aim, they are based on a multilingual European standard for semantic interoperability183

The European Learning Model

The European Learning model (ELM) is a multilingual data model of Learning Opportunities, Qualifications, Accreditation and Credentials in Europe, developed by the European Commission. It is the semantic model used for sharing information on qualifications and learning opportunities in a standardised manner with the Europass platform, as well as for issuing European Digital Credentials for Learning (EDC). The ELM has been built using the starting points provided in the Annex VI of the European Qualifications Framework Council Recommendation on "Elements of data fields for the electronic publication of information on qualifications with an EQF level" as well as Annex I "European standard elements to describe a micro-credential" of the Council Recommendation on a European Approach to Micro-credentials.

The Regulation on electronic identification, authentication and trust services (eIDAS)

[183] The ELM interoperability assessment has been performed according to the Interoperable Europe Act and is available at: https://interoperable-europe.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss/solution/camss-assessment-elm-eif-scenario

The Regulation on electronic identification, authentication and trust services (eIDAS) of 23 July 2014 facilitates secure cross-border transactions by establishing a framework for digital identity and authentication. It aims to create confidence in electronic interactions and promote seamless digital services in the EU. This regulation specifically targets electronic identification (eID) and trust service providers, aiming to dismantle existing barriers hindering seamless use of trust services and eID usage across EU MS. The eIDAS Regulation has created standards for which electronic signatures, qualified digital certificates, electronic seals, timestamps, and other proof for authentication mechanisms enable electronic transactions, with the same legal standing as transactions that are performed on paper.

European Digital Identity Wallet (EUDI Wallet)

The eIDAS Regulation was reviewed in 2024. The eIDAS 2.0 includes the European Digital Identity Wallet (EUDI Wallet) which will enable users to access online services, store and share digital documents, and create binding signatures. Under the Regulation, MS must have a compliant wallet available by the end of 2026. Its use by citizens is voluntary. EUDI Wallets are the European Union's response to the challenges of digital identification. Every EU Member State will offer its own wallet app, built to the same specifications, to all citizens, residents and businesses in the next few years. Each version of the wallet will be interoperable and will work across the EU. EUDI Wallets will be able to store and share a wide range of digital documents. These can include everything from highly sensitive documents like mobile driving licences to everyday items like your gym membership card. The digital documents will be secure (strong cryptographic encryption keeps your data safe), privacy-preserving (private by design; only necessary information is shared) and cross-border. The possible illustrations of the digital qualifications in the EUDI Wallet are presented in Annex 11. The eIDAS 2.0 specifies in Annex VI that MS shall ensure that measures are taken to allow qualified trust service providers of electronic attestations of attributes to verify by electronic means at the request of the user, the authenticity of educational qualifications, titles and licences and professional qualifications, titles and licences. The specificities of the different areas where this applies, go beyond the scope of the eIDAS Regulation and its implementing regulations, which focuses on wallets and identity. Therefore, specific sectoral requirements need to be laid down in sectoral legislation that covers the rules for the specific use case.

Digital Credentials for the European Union (DC4EU)

The Digital Credentials for the European Union (DC4EU) was a large-scale pilot project[184] testing the use of the EUDI wallet in relation to the issuance, storage and presentation of verifiable digital credentials through wallet-based solutions, especially for educational qualifications and learning achievements and social security documents and entitlements. The aim was to test the technical feasibility of a wallet-based solution that would allow citizens and other parties to use trusted education and training and social security coordination digital documents across borders more easily.

In the context of education and professional development, verifiable credentials represent statements made by educational institutions and professional bodies about an individual's credentials in a tamper-evident and privacy-respecting manner. These Verifiable Credentials can be used to construct Verifiable Presentations, which can be cryptographically verified.

[184] MS involved include AT, BE, CZ, DE, DK, EL, ES, FI, FR, HU, IE, IT, LT, LU, MT, NL, PL, PT, RO, SE + NO, CH, UA (only 14 MS + NO and UA were involved for the pilot on education attestations, the others piloted only the social security use case). The types of organisations include higher education institutions (DK, EL, FR, IE, IT, LU, PT), a combination of Higher education institutions and Ministry of education and training (ES, NL, RO), a Ministry/agency only (FI, SE, NO, UA), a foundation working on education (MT), and the National Information Processing Institute supervised by the Ministry of Education and Science (PL)

The target system explored by the DC4EU project was an integrated digital ecosystem that addresses potential fraud and credential validation challenges, complies with European educational and professional qualification standards, increases acceptance among all relying parties (employers, educational and training institutions, professional bodies) and supports the free movement of workers and learners across the EU.

The project has demonstrated that a consistent and well-defined format for verifiable credentials for education and professional qualifications coordination is needed, which can be based on the EUDI wallet ecosystem and its related methods and technologies such as the identity framework. The joint format should enable the interoperability and compatibility of verifiable credentials across different systems, platforms, and domains in the EU, such as educational institutions, employers, professional bodies, and quality assurance organisations. Such a format ensures the security and trustworthiness of verifiable credentials and enhances the user experience by allowing users to manage their own digital identities and credentials.

To note that the **DC4EU** looked at higher education (the diploma, but also Diploma Supplement, transcript of record, proof of enrolment and micro-credentials), upper secondary education (upper secondary education certificate and transcript of records), VET (diploma, VET certificate and micro-credential), professional qualifications (Certificate of Professional Competence, Professional Medical Certification, Certificate of Professional Suitability, Accreditation of Medical Training, Continuous Professional Development and Professional Training Certificate) and other student identity or professional identity cards. DC4EU considered micro-credentials issued by non-formal providers, by companies (as part of continuous professional development), by social partners, or by chambers of commerce and industry as attestations that could be issued with the lowest level of assurance. The EDC infrastructure is for example mostly used by micro-credentials issuers and for non-formal certificates (e.g. Erasmus+ cooperation projects training certificates).

The DC4EU framework for educational and professional qualification credentials is based on an architecture that includes the European Learning Model (ELM) as semantic foundation and providing the ontological basis for all educational and professional achievement credentials. ELM introduces. It further includes the EDC-W3C VC data model – aligned with W3C standards and eIDAS 2.0 for technical implementation.

The results of the DC4EU pilot feed directly into this IA, supporting the formulation of policy options and the assessment of their feasibility, costs and benefits.

Single Digital Gateway Regulation (SDGR) and the Once-Only Technical System (OOTS)

The Single Digital Gateway Regulation (Regulation (EU) 2018/1724) facilitates online access to information, administrative procedures, and assistance services that EU citizens and businesses may need in another EU Member State. It contains procedures related to birth, residence, studying, working, moving, retiring and starting, running and closing a business. In relation to the three studying procedures, one includes a procedure for the academic recognition of diplomas, certificates or other proof of studies or courses, which means that evidence providers related to education and training have connected to the Once-Only Technical System. However, there is no procedure today in the SDGR to request a diploma for the purpose of applying for a job in another EU MS.

The Once-Only Technical System (OOTS) is the core infrastructure to implement the Single Digital Gateway. It aims to save EU citizens and businesses time and money by allowing the automatic exchange of official documents and data (such as diplomas, certifications or

permits) between the ‘competent authorities’ that issue this data and the public body requesting the data. This automatic data exchange puts users in charge of their data and reduces the costs involved when completing cross-border administration within the European Single Market. In order to be able to exchange structured data on learning via the OOTS, the ELM was recently adapted and now includes new data fields to cover the education-related use cases from the OOTS.

Annex 8: MAPPING OF INFORMATION PER MEMBER STATE

1. Purpose of this Annex

This annex presents a mapping of Member State positions and practices compiled specifically for this IA. It is distinct from the broader evidence base of the impact assessment, which draws on a wider range of sources and analytical instruments. The mapping focusses on seven thematic areas:

1. Non-regulated professions: covering the legal framework for comparability statements, qualification requirements outside the scope of the Professional Qualifications Directive, and ENIC-NARIC practices;
2. Digital credentials: covering the legal basis for digital diplomas, national infrastructure for issuing and storing credentials, and employer access tools; and
3. EQF/NQF architecture: covering national qualifications framework embedding, EQF referencing status, and qualification transparency instruments.
4. Member-State Readiness for Digital Qualification Issuance: covering implementation patterns, governance models, infrastructure and technical readiness, key challenges, and willingness to standardise on education qualifications
5. Provisions in collective agreements in MS related to qualifications
6. MS Education Providers – VET and HE Education Institutions
7. MS: Annual Issuance Attestation Volume

Data sources:

The following data sources were identified and specifically drawn upon for this annex. Each source was selected for its direct relevance to one or more of the thematic areas above. Where an item is relevant to more than one area, it appears in the primary thematic table with a cross-reference to the other.

For the items 1 to 3:

- Source 1: Structured Mapping (contractor-commissioned, 27 MS): Produced by ECORYS on behalf of DG EMPL as part of the SPI Action 1 workstream. Covers NQF/EQF status, the legal framework for non-regulated professions, and digital diplomas.
- Source 2: ReferNet Survey on Digital Credentials (Cedefop/ReferNet, 27 MS): Conducted via Cedefop's ReferNet network. Covers the development and use of digital credential tools, employer access discussions, and central access points for qualification information.
- Source 3: EQF National Contact Points Survey (survey data, 21 MS): Direct survey of EQF National Contact Points conducted for the SPI Impact Assessment. Covers legal frameworks for digital diplomas and diploma language requirements, skills portability barriers and regulatory gaps, and current digitalisation status.
- Source 4: ENIC-NARIC Centre Survey (survey data, 13 MS): Direct survey of ENIC-NARIC centres conducted for the SPI Impact Assessment. Covers the volume of comparability statements issued, the share attributable to non-regulated professions, and applicable fee structures. Belgium submitted separate Flemish and French-speaking responses but is counted as one Member State.

Items 1 to 3 of the annex draw on 24 items in total. Full coverage of all 27 MS is available for Sources 1 and 2 only; Sources 3 and 4 reflect partial response rates (21 and 13 MS respectively; Belgium's two community-level responses under Source 4 are counted as a single Member State). Belgium is reported as a single entry; regional differentiation between the Flemish and French-speaking communities is noted where responses diverge.

DC4EU deliverables and its final strategic report, EUDI Wallet national-rollout trackers, and EU education-credential infrastructure (EBSI, EMREX, European Digital Credentials / ELM). For caveats, cf.
For item 4:

point 8.5.

For item 5:

The table in Section 8.6. of this Annex summarises the findings of the Eurofound country fiches on the treatment of qualifications in collective agreements across MS[185]. At the time of submission of the revised Impact Assessment, country fiches were available for 20 of the 27 MS. The overview reflects the information available at that stage and should be interpreted as a qualitative mapping of national approaches rather than a fully comparable quantitative assessment, given the diversity of collective bargaining systems across MS.

For item 6:

Section 8.7 of this Annex contains Tables 6 and 7, which summarize the findings of Eurydice (VET) and EQAR (HE) regarding the MS Matrix of Education Providers. Table 6 outlines a conservative approach that excludes special VET education and applies a 50% distribution to mixed-program schools. Conversely, Table 7 details a comprehensive approach that includes special VET education and counts mixed-program schools at 100%. Data is related to 2024

For item 7:

The table in section 8.8 (table 8) of this annex summarizes the findings of EUROSTAT regarding the number of graduates per Member State. Data is related to 2024

[185] European Commission (2026 – unpublished); Overview report: Mapping references to qualifications in collective agreements across the EU; Report prepared by Eurofound with contributions from the Social Dialogue Network of Experts.

How to read Table 1

The table maps the recognition landscape for non-regulated professions across the EU-27. Each Member State occupies two rows: a coded summary row, and a narrative row giving the legal basis (§), illustrative professions requiring a specific national qualification, and any gaps or barriers reported. Coverage differs by column block because the three blocks draw on different sources (see *Data sources* above).

The three column blocks (left to right):

- **Legal framework (all 27 MS):** whether a Comparability Statement (CS) is owed and how strong it is: an *obligation* to issue one, an individual *right* to request one, whether its *outcome is binding* on employers, and whether *non-PQD qualification requirements* exist (nationally mandated qualifications for professions outside the Professional Qualifications Directive).
- **SPI gaps & barriers:** whether the Member State named structural gaps or barriers to skills portability.
- **ENIC-NARIC practice (responding MS only):** operational reality: annual CS *volume* (with reference year), the *share* attributable to non-regulated professions, and the *fee* charged.

The four "Legal framework" sub-columns:

- **Obligation for CS:** Is the authority obliged to issue a Comparability Statement?
- **Right to CS:** Does the individual have an enforceable right to request one?
- **CS outcome binding:** Does the result legally bind employers, or is it merely advisory?
- **Non-PQD qual. requirements:** Do nationally mandated qualifications exist for professions outside the PQD?

Coding:

- **Yes** = confirmed present/applicable; **Yes/part.** = partial, conditional, or sector-limited; **No/part.** = generally absent with limited exceptions; **No** = confirmed absent
- **>50% / 20–50% / <20%** = share of CS volume attributable to non-regulated professions (respondent's estimate)
- **n/a** = Member State did not respond to that survey instrument

2. TABLE 1 - Non-regulated professions

MS	Legal framework for non-regulated professions (all 27 MS)				SPI gaps & barriers EQF NCP	ENIC-NARIC practice (responding MS only)		
	Obligation for Comparability Statement (CS)	Right to CS	CS outcome binding	National qualification requirements (outside PQD)		CS volume (ref. year)	Share for non-reg. prof.	Fee
AT	**No**	**Yes**	**No**	**Yes/part.**	**Yes/part.**	**5,300**	**>50%**	**€150**
§ AuBG (2016) statutory right to qual. assessment (Bewertung) for non-reg. professions, administered by ENIC-NARIC AT; advisory for private employers (transparency instrument)								

MS	Legal framework for non-regulated professions (all 27 MS)				SPI gaps & barriers EQF NCP	ENIC-NARIC practice (responding MS only)		
	Obligation for Comparability Statement (CS)	Right to CS	CS outcome binding	National qualification requirements (outside PQD)		CS volume (ref. year)	Share for non-reg. prof.	Fee
Examples (outside PQD): forklift/crane operators (GewO §94), electrical engineers (ASchG); CS designed specifically for non-reg. profession use (AT institution note); NQF Act 2016 central; Recognition of Prior Learning (RPL) in Higher Education since 2021; no explicit gaps named.								
BE	No	Yes	No/part.	Yes	Yes/part.	n/a	n/a	n/a
Three community-level voluntary pathways, NARIC, EVC (Erkenning van Verworven Competenties), VAE (valorisation des acquis de l'expérience); fee-based; waivers for vulnerable groups; EVC certificates legally equivalent to formal quals (VET sector only); Examples (outside PQD): construction safety training mandatory (CLA PC124 2022); CFC (2015) + validation of non-formal and informal learning (VNFIL) cooperation agreement; gaps mentioned: institutional complexity; no structured non-reg. recognition system.								
BG	No	Yes, part.	No/part.	No	n/a	n/a	n/a	n/a
§ Law on the Recognition of Professional Qualifications (LRPQ) explicitly excludes non-reg. professions; direct labour market access; LRPQ outbound cert right + VET Act validation right; both limited in scope; VET validation cert legally equivalent within BG only; no EQF NCP response received.								
CY	No	No/part.	No/part.	Yes	No/part.	n/a	n/a	n/a
§ Cyprus Council for the Recognition of Higher Education Qualifications (KYSATS) provides academic recognition right for HE qualifications only; not a general CS right for non-reg. professions; Examples (outside PQD): OSH officer, construction Safe Pass, lift auditors (statutory H&S requirements); validation of non-formal and informal learning (VNFIL) available via Human Resource Development Authority (HRDA);								
CZ	No	Yes/part.	No/part.	Yes	Yes	No CS	n/a	~€120
§ Act 179/2006 Národní soustava kvalifikací (NSK, National Register of Qualifications), voluntary validation right; no entitlement to CS for foreign qualifications; NSK certificate produced by authorised institution; employer acceptance voluntary; Examples (outside PQD): technical equipment operators (Acts 309/2006, 250/2021); craft trades; barriers: fragmentation, high exam costs, Czech-only documentation, low coordination;								
DE	No	Yes	Yes/part.	Yes	n/a	120,000	>50%	€208
§ BQFG §4(1), justiciable, legal entitlement (Rechtsanspruch) to equivalent assessment; approx. 330 reference occupations; sector-specific bodies (IHK, HWK etc.); formal decision (Bescheid, Verwaltungsakt) legally operative in labour market; approx. 1,400 BQFG recognition decisions for non-regulated occupations from EU/EEA/Switzerland in 2022 (Report on the Recognition Act 2023). This BQFG track is separate from the approx. 120,000 ZAB Gleichwertigkeitsbescheide (see footnote) and is reported here in addition to the ENIC-NARIC survey response. Examples (outside PQD): radiation protection officer (StrlSchG §70/74), forklift (DGUV), food handling (IfSG §43).								
DK	No	Yes	Yes/part.	No	Yes/part.	4,027	>50%	Free
§ Danish Agency for Higher Education and Science (DAHE&S); statutory free assessment right for all foreign qual. holders incl. non-reg. professions; binding on public employers; advisory for private sector; Examples (outside PQD): no non-PQD examples found (E.O. 151/2016 occupations appear PQD-listed); covers direct-to-individual CS only; authority-directed statements not included.								
EE	No	Yes	No/part.	Yes/part.	n/a	3,188	>50%	Free
§ two statutory EQF-linked pathways: Education Act §28 + Professions Act §§22-25; both instruments advisory; non-binding on employers; Examples (outside PQD): open-flame workers, fire alarm specialists (Fire Safety Act)								
EL	No/part.	Yes	Yes/part.	Yes	n/a	No CS	n/a	€130–180
§ DOATAP (Hellenic National Academic Recognition and Information Centre); multiple statutory rights: DOATAP (Law 4957/2022) and EOPPEP (Law 4763/2020); Exception: foreign Higher Education holders must obtain DOATAP equivalence for public sector access (not private); DOATAP issues only legally binding decisions, DOATAP/EOPPEP decisions binding in public sector; advisory in private, Examples (outside PQD): private security (Law 2518/1997), adult trainers in publicly funded LLL centres (Law 4763/2020); Fee = formal binding decision.								
ES	No/part.	Yes	No	Yes	Yes/part.	No CS	n/a	€166
Obligations: limited exceptions; public employers must verify qualifications; § Academic Equivalence Declaration + accreditation of professional competences via experience (two distinct legal avenues); academic effects only; no								

MS	Legal framework for non-regulated professions (all 27 MS)				SPI gaps & barriers EQF NCP	ENIC-NARIC practice (responding MS only)		
	Obligation for Comparability Statement (CS)	Right to CS	CS outcome binding	National qualification requirements (outside PQD)		CS volume (ref. year)	Share for non-reg. prof.	Fee
professional access effects; Examples (outside PQD): tower crane operators (RD 836/2003), mobile crane operators (RD 837/2003), thermal installation techs (RITE); gaps mentioned: plurality of education systems and heterogeneous regulation increases complexity for recognition; ENIC-NARIC centre does not issue advisory CS; fee refers to formal recognition decision process.								
FI	No	Yes/part.	No	Yes	No/part.	n/a	n/a	n/a
§ Finnish National Agency for Education (OPH, Opetushallitus) advisory statement (lausunto), administrative practice, not primary statutory right; fee-based; non-binding by design; employer discretion determines outcome; Examples (outside PQD): hygiene passport, hot work card, asbestos registration (sector H&S certs outside PQD); all levels regulated; no SPI-specific barriers mentioned.								
FR	No	Yes	No	Yes	Yes	51,000	20–50%	€120
§ voluntary right via ENIC-NARIC France (Attestation de comparabilité); fee-based online procedure; Examples (outside PQD): CACES mandatory for forklifts, cranes, MEWP, tower cranes (Code du travail Art. R.4323-55/56); strong VAE (Validation des Acquis de l'Expérience) framework (reformed 2022); barriers: procedure complexity, EU tools insufficiently coordinated; VAE requires French proficiency, access barrier for non-native EU applicants.								
HR	No	Yes	No/part.	Yes	Yes	n/a	n/a	n/a
§ OG 69/2022, statutory right to qual. assessment for all persons; AZVO (Agency for Science and Higher Education) advisory opinion as output; AZVO opinion advisory/informational; non-binding on employers; Examples (outside PQD): OSH roles (OG 71/2014), construction site safety coordinators (OG 48/2018); 7 laws/regulations covering CROQF, RPL, VNFIL, micro-credentials, adult education.								
HU	No	Yes/part.	No/part.	No	Yes/part.	No CS	n/a	~€150
§ Act C/2001, general right to request equivalence assessment; no dedicated CS instrument; formal admin. document; confers transparency, not right to practice; Examples (outside PQD): no non-PQD mandatory qualification examples identified; gap: non-formal qualifications and micro-credentials not yet included in HuQF; ENIC-NARIC Centre does not issue advisory CS; fee refers to formal recognition decision process.								
IE	No	Yes/part.	No	Yes	Yes/part.	n/a	n/a	n/a
§ NARIC Ireland (QQA Act 2012), accessible comparability service; outputs advisory, no individually binding decisions; Examples (outside PQD): Safe Pass mandatory for all construction workers (SI 291/2013), gaps: "lack of skills language in qualifications approach", distributed decision-making slows new approaches.								
IT	No	Yes/part.	No/part.	Yes	Yes/part.	44,713	>50%	Variable
§ Law 4/2013 voluntary attestations by MIMIT (Ministero delle Imprese e del Made in Italy; registered associations) and IVC system (Identification, Validation, and Certification; Identificazione, Validazione e Certificazione; Law 92/2012 + Decree 13/2013); Examples (outside PQD): RSPP (Responsabile del Servizio di Prevenzione e Protezione), construction safety coordinators, equipment operators (D.Lgs. 81/2008); barriers: institutional fragmentation, uneven digital interoperability, limited micro-credentials regulation; ENIC-NARIC reports majority (>50%) for non-reg. professions overall; sub-analysis (labour market purpose) shows <20% for non-reg.								
LT	No	Yes	No	Yes	Yes	n/a	n/a	n/a
§ SKVC (Centre for Quality Assessment in Higher Education), voluntary right to academic recognition of foreign HE qualifications; Examples (outside PQD): crane, boiler, pressure vessel, lift, energy equipment operators (Law on Supervision of Potentially Dangerous Equipment, Order No.A1-333/2017); barriers: fragmentation of learning outcomes across subsectors, lack of interoperability, low employer engagement with official credentials.								
LU	No	Yes	No	Yes	n/a	n/a	n/a	n/a
§ VAE, statutory right covering VET and HE levels; results non-binding and confer no entitlements; Examples (outside PQD): designated safety employees (Grand Ducal Reg. 9 June 2006), Hotels, Restaurants and Cafés (HORECA) training (2023), real estate introducers.								
LV	No	Yes	No	Yes/part.	Yes/part.	n/a	n/a	n/a
§ AIC (Education Law s.11.1 + Cabinet Reg. No.520/2023), statutory right to academic comparability; output characterised as recommendation; Examples (outside PQD): RES technology installers (Construction Law, Cabinet Reg. No.610), OSH workers in special conditions; VNFIL regulated for HE and VET; e-seals regulated; no specific digital qualifications regulation								

MS	Legal framework for non-regulated professions (all 27 MS)				SPI gaps & barriers EQF NCP	ENIC-NARIC practice (responding MS only)		
	Obligation for Comparability Statement (CS)	Right to CS	CS outcome binding	National qualification requirements (outside PQD)		CS volume (ref. year)	Share for non-reg. prof.	Fee
MT	No	Yes	Yes/part.	Yes	Yes/part.	n/a	n/a	n/a
§ two distinct statutory channels: MQRIC (Malta Qualifications Recognition Information Centre) recognition statements and VNFIL (awards are formal NQF-classified qualifications); MQRIC justiciable via appeal; not binding on employers for employment decisions; Examples (outside PQD): OHS Competent Persons, Diploma OHS + 2 yrs experience (Admin. Instr. No.1/2025);								
NL	No	Yes	No	Yes	No/part.	15,947	>50%	Free / €125
§ Internationale diplomawaardering (IDW) platform (Nuffic + SBB), government-appointed voluntary credential evaluation for all workers; explicitly advisory, no legal rights derived; Examples (outside PQD): asbestos, H&S experts, fireworks, gas tankers (Arbowet); security guards (Wpbr); Skills portability: no regulation for skills validation; notable gap between strong digital diploma infrastructure and absence of skills validation framework; ENIC-NARIC combined: Nuffic (HE, 12,408) + SBB (VET, 3,539); SBB is not an ENIC-NARIC centre.								
PL	No	Yes/part.	No/part.	Yes	n/a	26,779	>50%	Free
§ Nostrification (process of validating a foreign diploma or degree), Act of 2018 (Higher Education only); ZSK/IQS (Integrated Qualifications System) voluntary certification (Act 2015); nostrification enforceable at HE institution level; Examples (outside PQD): construction engineering licences (Construction Act 1994), crane/forklift operators (UDT), heights cert, dietitian; ENIC-NARIC: processing time over 3 months; significant practical access barrier for labour market purposes.								
PT	No	Yes	No	No	n/a	n/a	n/a	n/a
§ three voluntary tracks: academic recognition (DL 66/2018), sub-tertiary equiv. via ANQEP (Agência Nacional para a Qualificação e o Ensino Profissional) and RVCC (Reconhecimento, Validação e Certificação de Competências); no professional access effects; employer retains full hiring discretion; Examples (outside PQD): no non-PQD mandatory qualification examples identified.								
RO	No	Yes	No	Yes	Yes	n/a	n/a	n/a
§ Ministerial Order No.5526/2024 (CNRED) + GO No.129/2000, two complementary legal pathways; Examples (outside PQD): ISCIR Technical Prescriptions, mandatory qualification for boiler, lift, pressure vessel operators (PT CR 8-2009); multiple recent ministerial orders 2023–2025 (Orders 4837, 6194, 6768, 6390); no explicit gaps named.								
SE	No	Yes	No	Yes	Yes/part.	n/a	n/a	n/a
UHR (Universitets- och högskolerådet) statutory responsibility to assess all foreign qualifications; explicitly non-binding; employer retains full hiring discretion; Examples (outside PQD): scaffolder, forklift, crane, machinery operators (AFS 2023 framework under Arbetsmiljölagen); § Swedish Validation Ordinance 2023 aims to enhance portability; barriers: inconsistent practices and fragmented rules.								
SI	No	Yes	No	Yes/part.	Yes	n/a	n/a	n/a
§ ZVPI (Zakon o vrednotenju in priznavanju izobraževanja), any individual may request ENIC-NARIC assessment; advisory opinion; right to appeal (ZNPK - National Professional Qualifications Act); Examples (outside PQD): safety and health coordinators at temporary construction sites (ZVZD-1 - Health and Safety at Work Act) and Pravilnik, Uradni list 31/2008; strong legal basis (ZSOK - Slovenian Qualifications Framework Act, micro-credentials in HE/VET law since 2026, ZNPK); gaps mentioned: frameworks operate in parallel, not as integrated system; implementation costs and limited end-user readiness.								
SK	No	Yes	No/part.	Yes	Yes/part.	725	>50%	€7–40
§ Act 422/2015, right to recognition for non-reg. professions; Act 292/2024 validation pathways; formal admin. decision (legally valid state document); employer acceptance in non-reg. sector voluntary; Examples (outside PQD): OSH specialists (Act 124/2006), toxic substance handlers (Act 355/2007 §15(3)); ENIC-NARIC centre: volume reduced by new automatic recognition system (SK note); low volume does not indicate low demand.								

Footnotes: **CZ, HU, ES**: do not issue advisory comparability statements directly to individuals; fee refers to formal recognition decision process; **EL** (DOATAP): issues only legally binding decisions, not advisory CS, fee refers to formal binding decision; **DE**: ZAB Gleichwertigkeitsbescheide (academic HE equivalence under KMK/HRK (Kultusministerkonferenz/Hochschulrektorenkonferenz) frameworks; legally and institutionally distinct from BQFG recognition decisions), majority share by stated application purpose at time of filing; actual downstream use not tracked by ZAB; **NL**: combined figure, Nuffic (HE, 12,408) + SBB (VET, 3,539), SBB is not an ENIC-NARIC centre; n/a: Member State did not respond to this survey instrument.)

Sources: Structured mapping (Ecorys, 27 MS), EQF NCP Survey (21 MS), ENIC-NARIC Survey (13 MS)

3. TABLE 2 - Digital credentials

MS	ECORYS + EQF NCP Survey (27 MS / 21 MS)	ReferNet / Cedefop Digital Credentials Survey			EQF National Contact Points Survey *(21 MS)*	
	Digital diploma law	**Employer access tool in place?**	**Central access point**	**DC tool type**	**Diploma language law**	**Digitalisation status**
AT	**Yes**	**No**	**No**	**n/a**	**Yes**	**n/a**
Digital diploma law: Universities Act mandates electronic signatures for higher education diploma supplements. No law prohibits digital issuance. Employer tools: No nationally uniform employer access platform exists, and no active national discussions on developing one have been reported. Central access point: Austria reports that no efforts have been made toward a consolidated central access point. The existing NQF Register covers only part of the qualification landscape. Diploma language: Diploma supplements are mandatory in German and English. School and VET certificates are issued in German only. Digitalisation status: no information on the overall state of digitalisation of qualifications.						
BE	**No/part.**	**Yes**	**Yes / Ongoing (regional)**	**multi / regional**	**Yes**	**No/part.**
Digital diploma law: No enabling law for digital diplomas has been found. The eIDAS framework and Belgian law recognise electr. signatures, and Smart Certificate initiative exists in practice. Employer tools: Federal Learning Account will be replaced by an individual skills portfolio. Discussions on employer access tools are ongoing in both communities. Central access point: FR-speaking community has CFC qualifications register (Yes). Flemish community is developing a central platform (Ongoing). Coded as regional split. Diploma language: Language is regulated by community decrees. French is mandatory in the French-speaking community. Europass supplements are available in French, German, Dutch and English. Digitalisation status: Official diplomas remain paper based. The Smart Certificate initiative is progressing, but no common higher education platform exists and interoperability is limited.						
BG	**No**	**Yes**	**Yes**	**national**	**n/a**	**n/a**
Digital diploma law: No law restricting or defining digital diplomas has been found. NACID uses electronic signatures as an administrative practice only. Employer tools: No specific national initiative for employer-facing digital credential tools exists. The general digital transition is underway. Central access point: An Interactive Digital List of Professions for Vocational Education and Training serves as a national register. No data for diploma language requirements or digitalisation status.						
CY	**No**	**n/a**	**Ongoing**	**n/a**	**n/a**	**No/part.**
Digital diploma law: No digital diplomas exist and no legal framework authorising them is in place. An administrative platform is under development.						

MS	ECORYS + EQF NCP Survey (27 MS / 21 MS)	ReferNet / Cedefop Digital Credentials Survey			EQF National Contact Points Survey *(21 MS)*	
	Digital diploma law	**Employer access tool in place?**	**Central access point**	**DC tool type**	**Diploma language law**	**Digitalisation status**
Employer tools: One tool is reported to be in development, but no national strategy is visible. Respondent answered "do not know". Central access point: The National Graduate Tracking Mechanism (CYGraduates) is under development. Diploma language: no information available. Digitalisation status: Digitalisation is under discussion with relevant authorities. No concrete developments have been reported.						
CZ	**Yes/part.**	**Planned**	**Ongoing**	**issuer-specific**	**Yes/part.**	**Yes/part.**
Digital diploma law: Electronic diplomas are fully legal, and their use is encouraged within the digitalisation framework. Some schools are already issuing digitally, no specific statute found. Coded as "Yes/part." (partial) after merging of sources. Employer tools: Discussions focus mainly on the EUDI Wallet and digital interoperability. An employer access tool is planned. Central access point: A National Register of Qualifications is under ongoing development. Diploma language: Higher Education Act regulates the form and status of diplomas. Czech and English are used in practice. Diploma supplements are bilingual. Digitalisation status: The EUDI Wallet is planned for end of 2026. A Verifiable Credentials pilot is underway through CESNET (2024). Key challenges of coordination and funding remain.						
DE	**No**	**n/a**	**Yes**	**EU-level-tools**	**n/a**	**n/a**
Digital diploma law: No law restricting or defining digital diplomas has been found. ZAB (Central Office for Foreign Education) operates digital recognition practices without a specific statutory framework. Employer tools: Pilot projects are developing prototypes, no national strategy. Central access point: The BIBB digital database of recognised training occupations serves as a central reference point. Diploma language/ Digitalisation status: n/a						
DK	**No**	**No**	**Yes**	**multi / regional**	**Yes**	**No/part.**
Digital diploma law: No specific law restricts or defines digital diplomas. Higher education institutions digitalise independently without a common ministerial standard. Employer tools: The existing "Min kompetencemappe" tool allows employer access to competence data, but the respondent did not characterise this as a new national discussion. Coded as No. Central access point: Uddannelsesguiden serves as a central education information guide. Diploma language: Danish is mandatory. English is permitted for higher education. Diploma supplements are mandatory in English and issued free of charge. Digitalisation status: The situation is fragmented. Higher education can issue digital credentials, but no common standard exists. VET digitalisation is more inconsistent.						
EE	**No/part.**	**Yes**	**Yes**	**multi / regional**	**Yes**	**Yes**
Digital diploma law: No specific enabling or restricting law exists. All existing and forthcoming legislation supports the transition to digital credentials. Employer tools: Through the Education Portal, individuals can share information on their educational achievements with employers. Active development is ongoing. Central access point: The Education Portal functions as a central access point.						

MS	ECORYS + EQF NCP Survey (27 MS / 21 MS)	ReferNet / Cedefop Digital Credentials Survey			EQF National Contact Points Survey *(21 MS)*	
	Digital diploma law	**Employer access tool in place?**	**Central access point**	**DC tool type**	**Diploma language law**	**Digitalisation status**
Diploma language: All diplomas and certificates must be issued in Estonian. Translations into other languages are permitted. Digitalisation status: Estonia is on a full digitalisation trajectory with a preference for database-to-database exchange domestically. A key SPI gap: the domestic infrastructure does not currently extend to cross-border scenarios.						
EL	**No**	**n/a**	**Yes**	**n/a**	**n/a**	**n/a**
Digital diploma law: DOATAP has operated end-to-end digital recognition since 2019 via the e-Doatap platform. No specific law restricting or defining digital diplomas was cited. Employer tools: A tool allowing employer access to credential data is reported to be in development. No national strategy. Central access point: The Greek Qualifications Register (GQR-PROSON) is in place. Diploma language/ Digitalisation status: n/a.						
ES	**Yes/part.**	**Yes**	**Yes**	**multi / regional + issuer-specific**	**Yes**	**Yes**
Digital diploma law: Several regulations promote the digitalisation of public administration and ensure the validity of digital signatures. A Royal Decree on the electronic degree was issued at the end of 2025. Employer tools: Digital credentials are being used for recruitment and training purposes with individual consent. Employer access tools are developing. Central access point: The CNECP (National Catalogue of Professional Competence Standards) serves as the central reference point. Diploma language: Diplomas are in Spanish and the relevant co-official regional language. Diploma supplements are bilingual or trilingual in Spanish, the regional language and English. Digitalisation status: Digitalisation is advanced at the foundational level. VET digitalisation has been a strategic priority since 2020.						
FI	**No**	**Yes**	**Yes**	**mix / national + issuer specific)**	**Yes/part.**	**No/part.**
Digital diploma law: No law authorises or restricts digital diplomas. The absence of an enabling framework creates practical uncertainty for cross-border recognition. Employer tools: Through the My Studyinfo service, individuals can share their own study data with employers. Discussions on extending this are ongoing. Central access point: Studyinfo serves as a central education information service. Diploma language: Higher education degrees studied in a language other than Finnish or Swedish must also be issued in Finnish or Swedish. English translations are regulated at national level. Digitalisation status: Education providers choose their own format freely. No nationally centralised service for digital credential issuance exists.						
FR	**No/part.**	**n/a**	**Yes/part.**	**n/a**	**Yes**	**Yes/part.**
Digital diploma law: No specific legal framework authorises or prohibits digital diplomas. The platform diplome.gouv.fr provides QR-code verified digital certificates. Employer tools: n/a Central access point: The platform diplome.gouv.fr serves as a national portal for diploma verification and digital certificate issuance.						

MS	ECORYS + EQF NCP Survey (27 MS / 21 MS)	ReferNet / Cedefop Digital Credentials Survey			EQF National Contact Points Survey *(21 MS)*	
	Digital diploma law	**Employer access tool in place?**	**Central access point**	**DC tool type**	**Diploma language law**	**Digitalisation status**
Diploma language: French is constitutionally mandatory (Article 2 of the Constitution and Loi Toubon 1994). Digitalisation status: Skills Passport aggregates learning data. ROME framework has been open-sourced. Digital certificates are issued via diplome.gouv.fr. No unified legal framework exists, and risks around fraud, data reliability and security have been noted.						
HR	**Yes**	**No**	**Yes**	**n/a**	**Yes**	**Yes**
Digital diploma law: Higher Education Act 119/22 requires all higher education institutions to issue digital diplomas to all graduates since 2024. Employer tools: No national discussions or tools for employer access to digital credentials reported. Central access point: The CROQF qualifications register is operational. Diploma language: Article 73 of the Higher Education Act requires diplomas in Croatian and English, in a signed and certified digital form, issued free of charge. Digitalisation status: Digital Diploma Register covers issuance, verification and historical diploma data from 1984 onwards.						
HU	**No/part.**	**n/a**	**Ongoing**	**n/a**	**Yes**	**No**
Digital diploma law: HU law requires paper diploma with rector signature and stamp as the default. Diploma supplements can be issued electronically on request with a qualified electronic signature. Employer tools: Discussions focus on improving the transparency and interoperability of existing registers. No employer-facing credential tool initiative is underway. Central access point: A Register of Programme Requirements is under ongoing development. Diploma language: Higher education diplomas are issued in Hungarian and English, or in Hungarian and Latin. Diploma supplements are mandatory in both Hungarian and English. Digitalisation status: Only isolated and initial institutional attempts at digitalisation have been made. No systemic national approach.						
IE	**No**	**n/a**	**Yes**	**EU-level-tools**	**No/part.**	**No**
Digital diploma law: No legislation addresses how awards are issued. The method of issuance is left entirely to awarding bodies. Employer tools: No known national discussions on employer access tools. Central access point: The Irish Register of Qualifications (IRQ) is in place. Diploma language: No specific language regulation exists. Diplomas are issued in Latin, English or Irish depending on the institution. Digitalisation status: Little to no digitalisation of qualifications has taken place. Cost has been identified as the biggest barrier.						
IT	**Yes/part.**	**Yes**	**Yes**	**multi / regional + issuer-specific**	**No/part.**	**Yes/part.**
Digital diploma law: Digital Administration Code, the eIDAS framework and a 2024 Ministerial Decree together enable digital issuance. No unified national statute exists. Employer tools: The SIISL platform explicitly includes functionalities allowing employers to access credential data. Active development is ongoing. Central access point: The INAPP Atlante del Lavoro provides a national competence and qualification database. Diploma language: Italian is the default language. Bilingual issuance is available in higher education. Italian translations are required for documents submitted for recognition purposes.						

MS	ECORYS + EQF NCP Survey (27 MS / 21 MS)	ReferNet / Cedefop Digital Credentials Survey			EQF National Contact Points Survey *(21 MS)*	
	Digital diploma law	**Employer access tool in place?**	**Central access point**	**DC tool type**	**Diploma language law**	**Digitalisation status**
Digitalisation status: Digitalisation is progressing but uneven. The legal basis exists, and digital issuance and verification are increasing. Institutional fragmentation and interoperability challenges remain.						
LT	**Yes**	**n/a**	**Yes**	**national + issuer-specific**	**Yes/part.**	**Yes**
Digital diploma law: Digital diplomas are legally regulated and issued for general education, VET and non-formal learning. Higher education diplomas are not yet digital. Several specific legal acts govern issuance. Employer tools: Limited information on employer tool discussions is available. Central access point: The modular VET programme register, and the AIKOS qualifications register are both publicly accessible. Diploma language: General education and higher education documents are in Lithuanian and English. VET documents are in Lithuanian only. Digitalisation status: Since 2023, general education and VET diplomas are exclusively digital. The AIKOS register is public. The KURSUOK platform for non-formal learning was launched in 2024. Higher education remains paper based.						
LU	**n/a**	**Planned**	**Yes**	**national**	**No**	**n/a**
Digital diploma law: Paper-based issuance is the confirmed norm. Employer tools: Luxembourg has engaged in discussions that would lead to employer access to digital credentials. A tool is planned. Central access point: The lifelong-learning.lu platform serves as a national access point. Diploma language/ Digitalisation status: n/a.						
LV	**No/part.**	**Yes**	**Yes**	**multi / regional**	**Yes**	**No**
Digital diploma law: No prohibition exists, but current law requires paper diplomas. An exception applies only to electronically signed certificates. Employer tools: Latvia is developing a national version of the EU Digital Identity Wallet. Employer access to credentials is planned as part of this development. Central access point: Nozaru kvalifikacijas strukturas provides a sectoral qualifications structures register. Diploma language: Latvian is mandatory for all documents. Diploma supplements at EQF levels 5 to 8 are required in Latvian and English. Digitalisation status: Digitalisation is legally blocked. Only paper diplomas are state-recognised and eligible for cross-border recognition. This is the most restrictive national position on digital credentials in the dataset.						
MT	**Yes/part.**	**n/a**	**n/a**	**n/a**	**Partially**	**Yes/part.**
Digital diploma law: A combination of national laws gives electronic documents equivalent legal standing to physical documents. No single statute covers this. Employer tools / Central access point: n/a. Diploma language: No specific language law. English and Maltese hold equal legal authority. Digitalisation status: Malta reports operating in full alignment with the most recent Commission updates.						

MS	ECORYS + EQF NCP Survey (27 MS / 21 MS)	ReferNet / Cedefop Digital Credentials Survey			EQF National Contact Points Survey *(21 MS)*	
	Digital diploma law	**Employer access tool in place?**	**Central access point**	**DC tool type**	**Diploma language law**	**Digitalisation status**
NL	**Yes**	**Yes**	**Yes**	**national**	**Yes/part.**	**Yes/part.**
Digital diploma law: Educational institutions are legally required to report diplomas in the national diploma register. A digital extract is legally recognised as official proof. Employer tools: Active discussions are underway on launching a digital tool providing employers with access to credential data, building on the existing IDW.nl infrastructure. Central access point: Leeroverzicht.nl serves as the central access point. Diploma language: Dutch is the primary required language. English supplements are available on request. Digitalisation status: CompetentNL skills ontology has been developed, and data are available for application development. A gap exists between the strong digital diploma infrastructure and the absence of a skills validation regulation framework.						
PL	**No**	**Yes**	**Yes**	**multi / regional + issuer-specific**	**n/a**	**n/a**
Digital diploma law: Digitalisation is at a very early stage. No specific legal framework has been identified. Employer tools: National discussions are ongoing about developing tools that would allow employers to verify digital credentials from the ZRK and IKZ qualification systems. Central access point: Integrated Qualifications Register (Zintegrowany Rejestr Kwalifikacji) is in place. Diploma language/ Digitalisation status: n/a.						
PT	**No**	**Yes**	**Yes**	**national**	**n/a**	**n/a**
Digital diploma law: Interviews confirm no restricting law exists. The "Impulso Mais Digital" initiative challenges higher education institutions to develop digital qualification projects. Employer tools: Active discussions and concrete developments on employer access to digital credentials are underway. Central access point: The National Catalogue of Qualifications (NCQ) is in place. Diploma language/ Digitalisation status: n/a.						
RO	**Yes**	**No**	**Ongoing**	**n/a**	**Yes**	**Yes/part.**
Digital diploma law: Law 199/2023 explicitly permits digital diplomas. No prohibition exists. Employer tools: No employer tool discussions have been reported. Central access point: The ReCONECT platform is under ongoing development. Diploma language: Language is regulated by law. Government Decisions GD 30/2024 (school) and GD 1225/2024 (higher education) set the format and content of certificates. Digitalisation status: Digital diplomas are legally permitted. The Digital Skills Strategy 2020 to 2030 is in place. Digital certifications are not yet standardised as a distinct procedure and are embedded in different qualification schemes.						

MS	ECORYS + EQF NCP Survey (27 MS / 21 MS)	ReferNet / Cedefop Digital Credentials Survey			EQF National Contact Points Survey *(21 MS)*	
	Digital diploma law	**Employer access tool in place?**	**Central access point**	**DC tool type**	**Diploma language law**	**Digitalisation status**
SE	**No/part.**	**n/a**	**No**	**n/a**	**No/part.**	**Yes/part.**
Digital diploma law: No law prohibits digital diplomas. Use varies by education level. Digital issuance is not standard in upper secondary, is used by some providers in higher vocational education, and is the established norm in higher education via the Ladok system. Employer tools: No clear national discussion was identified. Central access point: Sweden reports that no consolidated central access point exists. The "Find educations" portal has been listed but is not considered a central qualifications access point by the respondent. Diploma language: No law specifies the language of diplomas. Swedish is the default in practice. Many higher education institutions provide English translations or bilingual diplomas. Digitalisation status: Digital maturity in public administration and education is high. Electronic student records, transcripts and online verification are widely used in higher education and higher vocational education. Regulated professions involve greater complexity.						
SI	**Yes/part.**	**Yes**	**No**	**national**	**Yes**	**No/part.**
Digital diploma law: Digital diplomas are legally feasible under the ZEISZ Electronic Identification and Trust Services Act and the eIDAS framework. The University of Ljubljana already issues diploma supplements exclusively electronically. Employer tools: A digital identity wallet in which individuals grant employer access to their credentials is being established. Active development is ongoing. Central access point: Slovenia reports that no consolidated central access point for qualification information exists or is being actively pursued. The SOK qualifications framework is in place but does not fulfil this function. Diploma language: Diplomas are in Slovene. Diploma supplements are mandatory in Slovene and one official EU language. VET Europass certificate supplements are bilingual in Slovene and English. Digitalisation status: The legal foundation exists but diplomas remain paper-based in practice outside the University of Ljubljana. The EU Digital Identity Wallet is expected to be in place by 2026.						
SK	**No/part.**	**Planned**	**Ongoing**	**n/a**	**Yes**	**No/part.**
Digital diploma law: One decree allows electronic certificates but lacks specifics on authenticity, verification and storage. Genuine digital credentials are not yet established. Employer tools: The Act on Adult Education (292/2024) provides a basis for employer access to VNFIL and SKKR data. A tool is planned. Central access point: The Career Gate platform (Karierná brana) is under ongoing development. Diploma language: Laws require higher education diplomas in Slovak and English. Diploma supplements are bilingual. Digitalisation status: Digitalisation is at an early stage. Use is limited. The EPIVU portal and the INVESTech and BLOCKed projects are underway.						

4. TABLE 3 - EQF/NQF architecture

MS	**Structured Mapping** (all 27 MS)	**Central access point for**

	NQF legal basis *type and scope*	**NQF** referenced to EQF	**Initial EQF** referencing year	**Referencing** report last updated	**NQF** number of levels	**EQF levels on** certs, diplomas or supplements	**qualification information** digital platform / portal ReferNet / Cedefop DC Survey (all 27 MS)
AT	**Act / statute** Federal Law 14/2016; 8 levels	**Yes**	**2012**	**2012**	**8**	**Yes**	**No**
NQF legal basis: Grounded in Federal Law 14/2016; covers formal, informal and non-formal learning. Initial referencing and last report update: both 2012. Central access point: No consolidated central access point in place. The existing NQF Register covers only part of the qualification landscape.							
BE	**Decree / sectoral** 3 community decrees: FL 2009, FR 2015, DE 2013	**Yes/part.**	**FR: 2013 /** **FL: 2023/** **DE: n/a**	**FR: 2013 /** **FL: 2023 /** **DE: n/a**	**8**	**Yes/part.**	**Yes / Ongoing**
NQF legal basis: No federal NQF. Three separate community decrees form the legal basis. The German-speaking community is not EQF-referenced and does not indicate EQF levels on qualification documents. Referencing years: French-speaking community: initial referencing and last report update both 2013. Flemish community: 2023. **German-speaking community: not referenced yet.** Central access point: French-speaking community: operational qualifications register in place (Yes). Flemish community: under development (Ongoing).							
BG	**Gov. decision** CoM Decision No 96 (2012); 8 levels	**Yes**	**2013**	**2013**	**8**	**Yes**	**Yes**
NQF legal basis: Established by a Council of Ministers Decision, not a Parliamentary Act. Covers formal education subsystems. Initial referencing and last report update: both 2013. Central access point: An Interactive Digital List of Professions for VET serves as a national reference point.							
CY	**Gov. decision** CoM Decision (2008); 8 levels	**Yes**	**2017**	**2017**	**8**	**Yes**	**Ongoing**
NQF legal basis: Established by a Council of Ministers Decision; covers formal and non-formal qualifications. Initial referencing and last report update: both 2017. Central access point: A National Graduate Tracking Mechanism (CYGraduates) is under development.							
CZ	**Act / statute** Act 179/2006 (NSK); 8 levels	**Yes**	**2011**	**2011**	**8**	**Yes**	**Ongoing**
NQF legal basis: NSK system grounded in Act 179/2006. Higher education qualifications regulated separately via RKVV. Initial referencing and last report update: both 2011. Central access point: A National Register of Qualifications is under development.							
DE	**Gov. decision** Joint governmental resolution (2013); 8 levels	**Yes**	**2012**	**2012**	**8**	**Yes**	**Yes**
NQF legal basis: No dedicated NQF statute. Framework rests on a joint resolution of the Federal Government and the Laender. Initial referencing and last report update: both 2012.							

MS	Structured Mapping (all 27 MS)						Central access point for qualification information digital platform / portal ReferNet / Cedefop DC Survey (all 27 MS)
	NQF legal basis *type and scope*	**NQF** referenced to EQF	**Initial EQF** referencing year	**Referencing** report last updated	**NQF** number of levels	**EQF levels on** certs, diplomas or supplements	
Central access point: The BIBB digital database of recognised training occupations serves as a central reference point.							
DK	**Gov. decision** Administrative decision (2009); 8 levels	**Yes**	**2011**	**2023**	**8**	**Yes**	**Yes**
NQF legal basis: No single NQF statute. Framework integrated into sectoral legislation via administrative decision. Referencing years: Initial EQF referencing: 2011. Referencing report last updated: 2023, addendum published Central access point: Uddannelsesguiden serves as a central education information resource.							
EE	**Act / statute** Professions Act 2008; 8 levels	**Yes**	**2011**	**2015**	**8**	**Yes**	**Yes**
NQF legal basis: Grounded in the Professions Act 2008; covers formal and professional qualifications, applied selectively in non-formal education. Referencing years: Initial EQF referencing: 2011. Referencing report last updated: 2015. Central access point: The Education Portal serves as a central access point.							
EL	**Act / statute** Laws 3879/2010 and 4763/2020; 8 levels	**Yes**	**2015**	**2015**	**8**	**Yes**	**Yes**
NQF legal basis: Strong statutory basis across two legislative acts. Initial referencing and last report update: both 2015. Central access point: The Greek Qualifications Register (GQR-PROSON) is in place.							
ES	**Act / statute** Royal Decree 272/2022 (MECU); 8 levels	**Yes**	**2024**	**2024**	**8**	**No**	**Yes**
NQF legal basis: Royal Decree 272/2022 (MECU); levels 5 to 8 also regulated by RD 1027/2011 (MECES). Covers VET, professional certificates, artistic, sports and university qualifications. Initial referencing and last report update: both 2024. EQF levels on documents: Spain is the only member state without EQF levels on certificates, diplomas or supplements. Central access point: The CNECP (National Catalogue of Professional Competence Standards) serves as the central reference point.							
FI	**Act / statute** Act 93/2017 + Decree 120/2017; 8 levels	**Yes**	**2017**	**2017**	**8**	**Yes**	**Yes**
NQF legal basis: Firmly grounded in statute; covers formal qualifications and competence modules. Initial referencing and last report update: both 2017.							

MS	Structured Mapping (all 27 MS)						Central access point for qualification information digital platform / portal ReferNet / Cedefop DC Survey (all 27 MS)
	NQF legal basis *type and scope*	**NQF** referenced to EQF	**Initial EQF** referencing year	**Referencing** report last updated	**NQF** number of levels	**EQF levels on** certs, diplomas or supplements	
Central access point: Studyinfo serves as the central education information service.							
FR	**Act / statute** Labour Code + Laws 2002/2018 + Decree 2019; 8 levels	**Yes**	**2010**	**2021**	**8**	**Yes**	**n/a**
NQF legal basis: Strong statutory basis; recently reinforced via Decree 2025-500. Referencing years: Initial EQF referencing: 2010. Referencing report last updated: 2021 Central access point: the Registre National des Certifications Professionnelles serves as the central point on NQF qualifications							
HR	**Act / statute** CROQF Act (2013, amended 2021); 13 levels	**Yes**	**2012**	**2024**	**13**	**Yes**	**Yes**
NQF legal basis: CROQF Act covers all qualification types across 13 levels, broader than the standard 8-level EQF structure. Referencing years: Initial EQF referencing: 2012 Referencing report last updated: 2024 Central access point: The CROQF qualifications register is operational and publicly accessible.							
HU	**Gov. decision** Government Decision 1229/2012; 8 levels	**Yes**	**2015**	**2015**	**8**	**Yes**	**Ongoing**
NQF legal basis: Rests on a Government Decision; covers formal qualifications only. Non-formal qualifications and micro-credentials not yet included. Initial referencing and last report update: both 2015. Central access point: A Register of Programme Requirements is under development.							
IE	**Act / statute** Qualifications Acts 1999, 2012, 2019; 10 levels	**Yes**	**2009**	**2020**	**10**	**Yes**	**Yes**
NQF legal basis: Comprehensive statutory basis across three Qualifications Acts. Uses a 10-level structure, broader than the standard EQF. The 2019 amendment extended scope to non-formal awards. Referencing years: Initial EQF referencing: 2009. Referencing report last updated: 2020. Central access point: The Irish Register of Qualifications (IRQ) is operated by QQI.							
IT	**Gov. decision** Interministerial Decree 2018; 8 levels	**Yes**	**2013**	**2022**	**8**	**Yes**	**Yes**
NQF legal basis: Rests on an Interministerial Decree rather than primary legislation. Referencing years: Initial EQF referencing: 2013. Referencing report last updated: 2022. Central access point: The INAPP Atlante del Lavoro provides a national competence and qualification database.							

MS	Structured Mapping (all 27 MS)						Central access point for qualification information digital platform / portal ReferNet / Cedefop DC Survey (all 27 MS)
	NQF legal basis *type and scope*	**NQF** referenced to EQF	**Initial EQF** referencing year	**Referencing** report last updated	**NQF** number of levels	**EQF levels on** certs, diplomas or supplements	
LT	**Gov. decision** Government Resolution No.535 (2010, updated); 8 levels	**Yes**	**2011**	**2024**	**8**	**Yes**	**Yes**
NQF legal basis: Based on a Government Resolution; covers all official qualifications in general education, VET and higher education. Referencing years: Initial EQF referencing: 2011. Referencing report last updated: 2024. Central access point: The AIKOS qualifications register is publicly accessible.							
LU	**Act / statute** Law 2016 + Regulation 2017; 8 levels	**Yes**	**2012**	**2012**	**8**	**Yes**	**Yes**
NQF legal basis: Embedded in Law on Recognition of Professional Qualifications (2016) and implementing Regulation (2017); covers formal qualifications and VNFIL. Initial referencing and last report update: both 2012. Central access point: The lifelong-learning.lu platform serves as the national access point.							
LV	**Gov. decision** CoM Regulation No.322 (2017); 8 levels	**Yes**	**2011**	**2019**	**8**	**Yes**	**Yes**
NQF legal basis: CoM Regulation No.322 (2017) replaced the earlier No.990 (2010). Covers all formal qualifications including VNFIL pathways. Referencing years: Initial EQF referencing: 2011. Referencing report last updated: 2019. Central access point: The sectoral qualifications structures register serves as a central access point.							
MT	**Act / statute** Legal Notice 294 / S.L.327.431 (2012); 8 levels	**Yes**	**2009**	**2023**	**8**	**Yes**	**n/a**
NQF legal basis: Covers formal, non-formal and informal learning across all 8 levels. Referencing years: Initial EQF referencing: 2009. Subsequent updates: 2010, 2012, 2016. Referencing report last updated: 2023. Central access point: No data available.							
NL	**Act / statute** NLQF Act (2024); 8 levels + sublevel 4+	**Yes**	**2012**	**2019**	**8 + 4+**	**Yes**	**Yes**
NQF legal basis: NLQF Act adopted 2024; includes sublevel 4+ and covers formal and non-regulated private sector qualifications. The Act postdates the last referencing update. Referencing years: Initial EQF referencing: 2012. Referencing report last updated: 2019. Central access point: Leeroverzicht.nl serves as the central access point.							

MS	Structured Mapping (all 27 MS)						Central access point for qualification information digital platform / portal ReferNet / Cedefop DC Survey (all 27 MS)
	NQF legal basis *type and scope*	**NQF** referenced to EQF	**Initial EQF** referencing year	**Referencing** report last updated	**NQF** number of levels	**EQF levels on** certs, diplomas or supplements	
PL	**Act / statute** Act on integrated qualifications system (2016); 8 levels	**Yes**	**2013**	**2013**	**8**	**Yes**	**Yes**
NQF legal basis: Covers all formal qualifications and state-regulated and non-regulated qualifications outside formal education. Initial referencing and last report update: both 2013. Central access point: The Integrated Qualifications Register (Zintegrowany Rejestr Kwalifikacji) is publicly accessible.							
PT	**Gov. decision** Ministerial Order (2009); 8 levels	**Yes**	**2011**	**2011**	**8**	**Yes**	**Yes**
NQF legal basis: Rests on a Ministerial Order; covers formal education and the RVCC system for non-formal and informal learning. Initial referencing and last report update: both 2011. Central access point: The National Catalogue of Qualifications (NCQ) is in place.							
RO	**Act / statute** Education Laws 198/2023 and 199/2023; 8 levels	**Yes**	**2018**	**2025**	**8**	**Yes**	**Ongoing**
NQF legal basis: Embedded in the 2023 School Education Law and Higher Education Law. NQF levels required on all qualification documents. Two national registers: RNCP and RNCIS. Referencing years: Initial referencing year not stated in source text. Referencing report last updated: 2025. Central access point: The ReCONECT platform is under development.							
SE	**Gov. decision** Ordinance 2015:545; 8 levels	**Yes**	**2016**	**2016**	**8**	**Yes**	**No**
NQF legal basis: No dedicated NQF statute. Rests on a Government Ordinance, in force October 2015 (general) and January 2016 (application procedure). Initial referencing and last report update: both 2016. Central access point: No consolidated central access point in place. The "Find educations" portal exists but does not qualify as a central qualifications access point in the respondent's assessment.							
SI	**Act / statute** ZSOK (2016); 10 levels; micro-credentials since 2026	**Yes**	**2013**	**2013**	**10**	**Yes**	**No**
NQF legal basis: 10-level framework linking SQF to both EQF and QF-EHEA. EQF-referenced in 2013, pre-dating the ZSOK Act (2016). Micro-credentials defined in higher education and higher VET law since 2026. Referencing years: Initial referencing and last report update: both 2013. Central access point: No consolidated central access point in place. The SOK framework exists but does not fulfil this function.							

MS	Structured Mapping (all 27 MS)						Central access point for qualification information digital platform / portal ReferNet / Cedefop DC Survey (all 27 MS)
	NQF legal basis *type and scope*	**NQF** referenced to EQF	**Initial EQF** referencing year	**Referencing** report last updated	**NQF** number of levels	**EQF levels on** certs, diplomas or supplements	
SK	**Act / statute** Act on Lifelong Learning 568/2009 (amended 2012); 8 levels	**Yes**	**2017**	**2017**	**8**	**Yes**	**Ongoing**
NQF legal basis: Covers formal education subsystems and occupational qualifications outside formal education at SKKR levels 2 to 7. Initial referencing and last report update: both 2017. Central access point: The Career Gate platform (Karierná brana) is under development.							

5. Member-State Readiness for Digital Qualification Issuance

Implementation patterns, governance models, infrastructure and technical readiness, key challenges, and willingness to standardise on education qualifications

Snapshot as of July 2026. Synthesised from DC4EU deliverables and its final strategic report, EUDI Wallet national-rollout trackers, and EU education-credential infrastructure (EBSI, EMREX, European Digital Credentials / ELM).

5.1. Scope, method and how to read this

No single source provides a clean 27-way matrix across all five dimensions. This breakdown is assembled from several evidence bases, and confidence varies by cell:

- **Sourced (higher confidence):** DC4EU consortium composition and role (which national institutions issued/tested, who led work packages and sat on the governance boards); national EUDI Wallet rollout tier (public trackers, Apr–Jul 2026); documented EBSI/EMREX education pilots.
- **Baseline structural facts:** all 27 MS are members of the European Blockchain Partnership (EBSI) and have referenced their NQFs to the EQF — so a floor of standardisation already exists everywhere.
- **Assessed (lower confidence, inference):** the governance/organisational model and the willingness-to-standardise rating are analytical judgements drawn from observable participation patterns and known national HE-governance structures — not declared national positions. Treat these two columns as directional.

Two framing caveats. First, DC4EU's education work (WP5) documented far fewer named national issuers than its social-security work (WP6), so the country-level education picture leans on wallet-readiness and EBSI/EMREX participation as proxies. Second, the wallet-readiness tiers are a fast-moving snapshot; several states have shifted tier within 2026.

Wallet tier key: T1 = live wallet or public sandbox; T2 = existing national eID app with a visible EUDI upgrade path; T3 = announced, no public sandbox yet; T4 = developer/legal materials only. Willingness ratings (Very High → Emerging) reflect the strength and visibility of a state's engagement in cross-border credential standardisation, not its overall digital maturity.

5.2. The cross-cutting picture

Two things stand out. First, **the domain most willing and structurally able to standardise education qualifications is not necessarily the one with the most wallet-ready substrate.** The states with the deepest education-credential infrastructure — the Netherlands, Sweden, Finland — are Tier 3/4 on the wallet itself, while the clearest wallet leaders (Italy, Germany, France, Denmark) reached production first through ID and social-security use cases rather than diplomas.

Second, DC4EU's headline finding — **pluralistic coexistence** — is visible in the national topologies. Issuance is organising around two recurring archetypes rather than one:

- **Sector-agency-mediated issuance** — institutions issue through a national trust/aggregation layer run by a research-and-education agency (Netherlands: SURF/DUO; Sweden: Sunet/Ladok; Greece: GUnet; Spain via its university sector). Federated, high autonomy, strong existing credential rails (EMREX, Edubadges, eDiplomas).
- **Ministry- or registry-centralised issuance** — a central authority or national diploma registry anchors issuance (common across France, Italy, Ireland/QQI and much of Central and Eastern Europe). Cautious, legally anchored, fewer but larger issuers.

SPI's attestation fields have to survive both topologies — which is an argument for conditional scoping over blanket mandates, and for keeping wallet-layer mechanics out of the fields legal text.

5.3. TABLE 4 - Member-state matrix

Member State	EUDI Wallet readiness (Apr–Jul 2026)	DC4EU / education-pilot role	Education-credential infrastructure	Governance / organisational model (assessed)	Willingness to standardise (assessed)
Austria	T2 — national eID (ID Austria) on track to become the EUDIW	DC4EU social-security WP lead (DVSV) + SVS; hosted Vienna workshop	EBP/EBSI + EQF baseline; strong e-government; autonomous universities	Centralised federal e-gov; institutionally autonomous HE	High

Member State	EUDI Wallet readiness (Apr–Jul 2026)	DC4EU / education-pilot role	Education-credential infrastructure	Governance / organisational model (assessed)	Willingness to standardise (assessed)
Belgium	T2 — mature eID (itsme); visible EUDI path	DC4EU SS (Smals, CBSS, NSSO); partner in first EBSI Belgium–Italy diploma pilot	EBSI diploma pilot experience; EMREX-adjacent	Federal, community-split (Flanders/Wallonia) → multiple competent authorities	High
Bulgaria	T4 — draft wallet law (Feb 2026), dev repo, no sandbox	DC4EU SS (NSSI, NHIF)	EBP/EBSI + EQF baseline; limited public education-credential activity	Centralised, ministry-led	Emerging
Croatia	T3 — announced, no public sandbox	DC4EU SS (Regos)	EBP/EBSI + EQF baseline	Centralised	Medium
Cyprus	T2 — Digital Citizen app; EUDI details less public	Low DC4EU visibility	EBP/EBSI + EQF baseline	Centralised	Medium
Czechia	T2 — existing national eID; EUDI path	DC4EU SS (KZP)	EBP/EBSI + EQF baseline	Centralised	Medium
Denmark	T1 — AltID live in production (Jun 2026); test access	DC4EU SS core team (STAR — technical functionality)	Nordic EMREX ecosystem; mature sector agencies	Digitally mature; centralised with strong agency delivery	High
Estonia	T3 — announced; but among most mature eID / digital-gov states	DC4EU SS (Ministry of Social Affairs)	Very high digital-gov maturity (X-Road); EBP/EBSI + EQF	Centralised, highly digital	High (capability)
Finland	T4 — strong pilot history, public docs, no general sandbox	DC4EU SS (Kela); Advisory Board (Ministry of Finance)	EMREX early adopter (Metropolia); EBSI research (Tampere)	Centralised digital-gov; autonomous HEIs	High
France	T1 — France Identité + public playground / OpenID4VP demos	DC4EU SS (CLEISS, URSSAF/ACOSS, CNAM); hosted Paris workshop; EBSI micro-credentials project	EBSI micro-credentials pilot; centralised diploma systems	Centralised, ministry-driven	High
Germany	T1 — state EUDI Wallet sandbox live for organisations	DC4EU SS core (DRV-Bund — technical architecture; DVKA, GZD)	EBP/EBSI + EQF; credentialing devolved to Länder	Highly federal/decentralised → heavy internal coordination	High (capability)

Member State	EUDI Wallet readiness (Apr–Jul 2026)	DC4EU / education-pilot role	Education-credential infrastructure	Governance / organisational model (assessed)	Willingness to standardise (assessed)
Greece	T2 — existing app + EUDI path	Advisory Board (GRNET); GUnet hosted the education federated test environment; EBSI Formal-Accreditation project (Ministry of Education, GUnet)	eDiplomas; GUnet academic federation; strong	Ministry-centralised, but GUnet-federated for HE	High
Hungary	T2 — DAP wallet/eID programme	Low DC4EU visibility	EBP/EBSI + EQF baseline	Centralised	Medium
Ireland	T3 → citizen-facing test wallet opened 2026	DC4EU SS (Dept of Social Protection); hosted Dublin workshop	EBP/EBSI + EQF; centralised awarding via QQI	Centralised awarding body (QQI)	High
Italy	T1 — IT-Wallet (IO app) live since Dec 2024, millions of documents	DC4EU SS (INPS); hosted Rome workshop; first EBSI BE–IT diploma pilot	EBSI diploma pilot; national diploma systems	Ministry-centralised (MUR)	High
Latvia	T3 — announced, no public sandbox	Low DC4EU visibility	EBP/EBSI + EQF; Baltic digital-gov	Centralised	Medium
Lithuania	T3 — announced, no public sandbox	EBSI education research (Kaunas Univ. of Technology)	EBSI micro-credential research; EBP/EBSI + EQF	Centralised	Medium–High
Luxembourg	T2 — POTENTIAL pilot; wallet due end-2026; no WRPAC path yet	DC4EU SS (CCSS); Advisory Board (Ministry for Digitalisation)	EBP/EBSI + EQF baseline; small system	Centralised	High
Malta	T3 — announced, no public sandbox	Education leadership on DC4EU Strategic/Scientific Committee (3CL Foundation)	Well-developed MQF; EBP/EBSI + EQF	Centralised (MFHEA)	High (policy); limited capacity
Netherlands	T4 — visible tech work; first release signalled limited (schedule risk)	DC4EU education core: SURF + DUO, 4 HEIs, ELM converter tool; SS (Vecozo, SVB)	SURF/DUO diploma register, Edubadges; among the most mature	Federated sector agencies (SURF/DUO); autonomous HEIs	High
Poland	T2 — mObywatel (strong national app)	DC4EU SS (NFZ, ZUS); Advisory Board (NASK)	EBP/EBSI + EQF; EMREX-adjacent	Centralised, ministry-led	High

Member State	EUDI Wallet readiness (Apr–Jul 2026)	DC4EU / education-pilot role	Education-credential infrastructure	Governance / organisational model (assessed)	Willingness to standardise (assessed)
Portugal	T2 — gov.pt / id.gov.pt; EUDI path	DC4EU SS (ISS); hosted Lisbon workshop	EBP/EBSI + EQF baseline	Centralised	Medium–High
Romania	T3 — announced, no public sandbox	EBSI micro-credentials project (FR/ES/RO)	EBSI micro-credential pilot; EBP/EBSI + EQF	Centralised	Medium
Slovakia	T2 — existing eID; EUDI path	Low DC4EU visibility	EBP/EBSI + EQF baseline	Centralised	Medium
Slovenia	T3 — announced, no public sandbox	Advisory Board (Ministry of Economic Development & Technology)	EBP/EBSI + EQF baseline	Centralised	Medium–High
Spain	T2 — announced EUDIW project; strong programme	DC4EU coordinator (SGAD/MINECO); GISS (SS); URV education lead; EBSI micro-credentials + formal accreditation	Active in multiple EBSI education pilots; regionally organised HE	Regional (autonomous communities) + national coordination	Very High (lead)
Sweden	T3 — announced; early app features	Advisory Board (DIGG); Sunet hosted the education federated environment; SS (Försäkringskassan)	Ladok; EMREX co-founder; among the most mature	Federated (Ladok consortium); autonomous HEIs	Very High

Cell shading: wallet column graded T1 (green) → T4 (orange); willingness column graded Very High (green) → Emerging (orange). "SS" = social-security pilot (WP6). "EBP/EBSI + EQF baseline" denotes the standardisation floor common to all MS rather than a specific national deployment.

5.4. Implementation patterns, technical readiness and key challenges, by cluster

The 27 states group into four clusters on the combination of wallet substrate and education-credential maturity. Key challenges are noted per state.

Cluster A — Wallet-ready front-runners (production or public sandbox)

Italy — IT-Wallet (IO app) has been citizen-facing since December 2024 with millions of documents activated, and Italy has hands-on EBSI diploma experience from the first Belgium–Italy pilot. Challenge: EUDI interoperability/certification of the national wallet is still in train, and diploma issuance is centralised — moving from ID documents to qualifications means engaging MUR and the university system.

Germany — A state EUDI Wallet sandbox is live and DRV-Bund led DC4EU's technical architecture, so capability is high. Challenge: education credentialing is a Länder competence — Germany's federal structure is its single biggest coordination hurdle for a coherent national issuance topology.

France — France Identité plus a public playground and OpenID4VP verifier demos put France in the top tier, and it ran an EBSI micro-credentials pilot with Spain and Romania. Challenge: France Identité is still distinct from the full Article 5a wallet; issuance is centralised, so the question is throughput and getting HEIs onto the rail.

Denmark — AltID went into production in June 2026 and STAR sat in DC4EU's social-security core team; strong Nordic EMREX rails exist for education. Challenge: the current relying-party registry is not yet an eIDAS 2.0 registry, and diploma use cases still need to be built on top of the ID substrate.

Cluster B — Education-credential leaders, slower wallet substrate

Netherlands — The strongest education-credential story in DC4EU: SURF and DUO ran a federated (non-EBSI) test environment with four HEIs and built the open-source ELM converter, on top of a mature diploma register and Edubadges. Challenge: the national wallet is Tier 4 with a signalled limited first release — the substrate lags the credential infrastructure, creating schedule risk and a real chance of parallel rails.

Sweden — Sunet hosted the shared education federated environment, DIGG sits on the DC4EU Advisory Board, and Sweden co-founded EMREX with Ladok as the backbone. Challenge: the wallet itself is Tier 3 (announced), so world-class credential infrastructure is currently ahead of the wallet it must plug into.

Finland — Deep EMREX adoption (Metropolia) and EBSI research (Tampere), with the Ministry of Finance on the Advisory Board. Challenge: Tier 4 wallet — strong pilots and documentation but no general national sandbox yet.

Estonia — Among the most mature digital-government states (X-Road), which gives it high underlying capability. Challenge: the wallet is only 'announced', and its public education-credential pilot footprint in DC4EU is comparatively thin relative to its overall maturity.

Cluster C — Engaged fast-followers (Tier 2 eID app or strong governance role)

Spain — The DC4EU coordinator (SGAD/MINECO), with GISS in social security, URV leading on the education side, and participation in both EBSI micro-credentials and formal-accreditation projects. Challenge: HE is organised regionally across autonomous communities, so national coordination is the main lift; the wallet is a strong but 'announced' programme.

Belgium — Mature itsme eID and hands-on EBSI diploma experience from the Belgium–Italy pilot. Challenge: the federal, community-split structure (Flanders/Wallonia) multiplies the competent authorities involved in qualifications.

Greece — GUnet hosted the education federated environment, GRNET is on the Advisory Board, and the Ministry of Education/GUnet run an EBSI formal-accreditation project on top of eDiplomas. Challenge: reconciling ministry-centralised governance with GUnet's federated HE delivery.

Ireland — A citizen-facing test wallet opened in 2026, and DSP was an active social-security participant (Dublin workshop host). Challenge: awarding is centralised via QQI — an advantage for consistency but a single-point dependency; the wallet is early-stage.

Luxembourg — CCSS participated in social security, the Ministry for Digitalisation is on the Advisory Board, and a wallet is due by end-2026 via the POTENTIAL pilot. Challenge: no public relying-party (WRPAC) path yet, and small-state capacity constraints.

Austria — ID Austria is a mature eID on track to become the national wallet, and DVSV led DC4EU's social-security work package. Challenge: converting the strong ID base into education issuance and engaging autonomous universities.

Poland — mObywatel is a strong national app, NFZ/ZUS participated in social security, and NASK sits on the Advisory Board. Challenge: centralised, ministry-led education governance needs to open interfaces to HEIs.

Portugal — gov.pt / id.gov.pt provide a Tier 2 base and ISS hosted the Lisbon workshop. Challenge: limited public education-credential pilot visibility to date.

Malta — Outsized policy leadership through 3CL on the DC4EU Strategic/Scientific Committee, with a well-developed MQF. Challenge: strong on framing and standards, but small administrative capacity and a Tier 3 wallet.

Cluster D — Building / lagging substrate

Lithuania & Romania — Both bring specific EBSI education pilot experience (Kaunas University of Technology; the FR/ES/RO micro-credentials project) but sit at Tier 3 on the wallet. Challenge: turning pilot experience into a national issuance rail while the wallet is still pre-sandbox.

Croatia, Czechia, Slovakia, Slovenia, Hungary, Cyprus, Latvia — Centralised systems with the EBP/EBSI + EQF standardisation floor in place, generally Tier 2–3 wallets, and limited public education-credential pilot activity. Challenge: capacity and funding — DC4EU's finding that ~60% of smaller public bodies cannot sustain specialised capability without multi-annual funding (and ~35% had already lost key staff) bites hardest here; these states will lean most on the EU reference implementation and common tooling. Slovenia's governance engagement (Advisory Board) is a positive signal.

Bulgaria — A draft wallet law was published for consultation in February 2026 with a developer repository but no sandbox; NSSI/NHIF participated in social security. Challenge: earliest-stage substrate of the group, so education issuance is furthest out.

Non-EU participants worth tracking (out of scope for the 27 but technically aligned): Norway (Vitnemålsportalen, EMREX co-founder), Iceland and Ukraine took part in the Large-Scale Pilots; Switzerland's swiyu is a useful interoperability reference despite sitting outside eIDAS.

5.5. What this means for the Skills Portability Initiative

- **Design for two issuance topologies, not one.** Sector-agency-mediated (NL/SE/EL/ES) and ministry/registry-centralised (FR/IT/IE/CEE) will both persist. Attestation fields and the accreditation-evidence model need to work whether the trust chain runs through a national HE agency or a central registry.
- **The standardisation floor is real — use it.** Universal EBP/EBSI membership, completed EQF referencing, and the ELM/EDC data model give SPI a running start on semantic convergence. The live risk is the trust layer and the still-unpopulated IR 2025/1569 attribute/schema catalogues, not the data model.
- **Wallet-substrate unevenness is a sequencing risk.** The states best placed to issue rich qualifications (NL, SE, FI) are behind on the wallet; the wallet leaders (IT, DE, FR, DK) got there via ID/social security. SPI should not assume every Member State can ride a certified wallet for diplomas at the same time.
- **Capacity erosion in smaller states is the quiet threat.** Cluster D will depend disproportionately on the EU reference implementation and shared tooling; the more SPI can lean on common components rather than bespoke national integration, the wider the coverage.
- **Federal/regionally organised states need extra lead time.** Germany (Länder), Belgium (communities) and Spain (autonomous communities) each have internal coordination overheads that a single national deadline understates.

5.6. Sources & confidence note

Primary: DC4EU deliverable D6.2 (Deployment, Testing & Piloting Scenarios Results Library, 2025), the DC4EU Sectoral Rulebook (Education & Professional Qualifications, v2/v3), and 'Beyond DC4EU' (3CL Foundation, Jan 2026). Wallet readiness: eIDAS-Pro and eIDeasy national trackers (Apr–Jul 2026) and national announcements. Education infrastructure: EBSI diploma / micro-credentials / formal-accreditation project pages, the EMREX network, and SURF's DC4EU documentation.

The 'Governance / organisational model' and 'Willingness to standardise' columns are analytical assessments inferred from participation patterns and known HE-governance structures, not declared national positions. They are intended to orient prioritisation, not to be quoted as country commitments.

6. TABLE 5 - Provisions in collective agreements in MS related to qualifications

MS	Summary of Provisions in Collective Agreements in relation to qualifications	Are there provisions in collective agreements that refer to qualifications to establish grade, pay and working conditions	If yes, please indicate how common such references to qualifications in collective agreements are	Types of Qualifications Mentioned + Summary	How do the different practices affect the ability of holders of non-nationally obtained qualifications to prove that they should fall into a certain category?	Additional info and use of "comparability" statement
Austria	Qualifications are a central element of Austrian collective bargaining. Sectoral agreements commonly classify workers into wage groups using formal educational qualifications, vocational training, experience and job responsibilities. References are strongest in regulated professions but are also widespread in non-regulated sectors. Only a small number of agreements explicitly address qualifications obtained abroad.	Yes	Very Common	Specific national qualifications mentioned; NQF levels mentioned; Other criteria (experience, responsibility and skills) mentioned; Comparable qualifications mentioned only in a limited number of agreements; EQF levels not mentioned.	Most agreements are silent on foreign qualifications. Recognition generally depends on national administrative recognition procedures. The Hotel and Restaurant Agreement is an exception, recognising previous experience acquired abroad and allowing recognised foreign vocational qualifications to be taken into account for classification.	The Hotel and Restaurant Industry collective agreement explicitly states that previous periods of service and industry experience are taken into account regardless of whether they were acquired in Austria or abroad, provided appropriate evidence is supplied. The agreement further explains that foreign vocational qualifications are recognised for classification where equivalence with Austrian training has been confirmed by the competent ministry. Most other Austrian collective agreements do not address equivalent qualifications acquired abroad.
Belgium	Belgian collective agreements frequently use job-classification systems combining qualifications, diplomas, certificates, training, competence, experience and responsibility to determine occupational categories, wage scales and career progression. The importance of qualifications varies considerably across sectors.	Yes	Somewhat Common	Specific national qualifications mentioned; NQF levels mentioned; Comparable qualifications mentioned in some agreements; Other criteria (skills, competences, certificates, licences, experience and responsibility) mentioned; EQF levels not mentioned.	Portability differs by sector. Some agreements recognise equivalent qualifications or practical experience, whereas others require Belgian certificates or licences, particularly in regulated occupations.	The agreements do not mention formal comparability statements or recognition authorities for either regulated or non-regulated professions. Where foreign qualifications are concerned, classification depends on the general national recognition framework rather than on provisions in collective agreements.
Bulgaria	Qualification provisions are concentrated in public and publicly funded sectors, where they determine eligibility for posts and pay levels. Most industrial agreements instead classify workers according to tariff grades and seniority, with qualifications mainly appearing in training	Yes	Somewhat Common	Specific national qualifications mentioned; NQF levels mentioned (libraries agreement only); EQF levels not mentioned; Comparable qualifications not mentioned; Other criteria not mentioned.	Collective agreements contain no provisions on recognising foreign qualifications. Classification depends on national recognition rules outside collective bargaining.	Collective agreements do not refer to formal comparability statements or recognition authorities. Recognition of foreign qualifications is governed outside collective bargaining.

	provisions.					
Croatia	References to qualifications in Croatian collective agreements are relatively rare and are found mainly in public-sector agreements. Where they occur, qualifications are linked to salary coefficients, grading, annual leave, probationary periods, traineeships and certain professional entitlements. Private-sector agreements generally leave job classification to employer decisions.	Yes	Rare	Only specific national qualifications mentioned; National qualifications framework levels mentioned; European qualification levels mentioned (no); Open to comparable qualifications (no).	Trade unions reported that employers generally rely on work organisation needs, testing and probation rather than formal recognition of foreign qualifications. Employers did not report specific practices for non-regulated professions.	No evidence was found that collective agreements require formal comparability statements for non-regulated professions. According to ASOO, comparability statements are mainly used for specific administrative procedures (e.g. education vouchers or regulated crafts), rather than for collective bargaining or employment classification.
Cyprus	No provisions explicitly use qualifications as a criterion for determining pay, grading, or working conditions. Employment conditions are regulated independently of formal qualifications.	No	N/A	N/A	N/A	The collective agreements examined do not require a formal comparability statement from a recognition authority. No provisions on the recognition or comparability of qualifications were identified.
Czechia	Czech collective agreements commonly use job catalogues and occupational classification systems to determine remuneration. Qualification-based classification is widespread but not universal, with many agreements referring to national occupational catalogues for pay grading.	Yes	Somewhat Common	Specific national qualifications mentioned through job catalogues; NQF levels not mentioned; EQF levels not mentioned; Comparable qualifications not explicitly mentioned; Other criteria (national occupational/job catalogues) mentioned.	Collective agreements classify employees according to national occupational catalogues. No explicit provisions on recognising foreign qualifications were identified.	The collective agreements reviewed classify employees through national job catalogues and occupational classification systems. No provisions referring to formal comparability statements or recognition of foreign qualifications were identified in the material reviewed.
Denmark	Qualifications are a central element of Danish collective agreements, particularly for wage formation. Unlike many other countries, agreements generally do not classify workers by formal qualifications or NQF/EQF levels but rely on actual skills, competencies, education, work experience and job requirements, with pay determined largely through local bargaining.	Yes	Very Common	Specific national qualifications not mentioned; NQF levels not mentioned; EQF levels not mentioned; Comparable qualifications mentioned; Other criteria (skills, competencies, education, experience, job requirements and performance) mentioned.	Since collective agreements do not distinguish between Danish and foreign qualifications, recognition depends primarily on employer assessment and, where necessary, the Danish Agency for Higher Education and Science. Foreign qualifications from both EU and third countries may be recognised if considered equivalent and relevant.	Collective agreements generally do not require Danish qualifications or formal comparability statements. Where regulated professions or vocational qualifications are involved, recognition is governed by Danish legislation rather than collective agreements. In practice, employers may recognise relevant foreign education, qualifications and work experience when determining wage placement or individual pay.
Germany	German collective agreements routinely link pay groups and grading systems to formal educational and vocational qualifications through detailed pay-classification frameworks (Entgeltordnungen). Qualification-based grading is a standard feature across sectors, particularly in the public sector.	Yes	Very Common	Specific national qualifications mentioned; NQF levels mentioned; EQF levels not mentioned; Comparable (equivalent) qualifications mentioned; Other criteria not systematically mentioned.	Several agreements contain equivalence clauses that could facilitate recognition of foreign qualifications, although no agreement specifies how equivalence is assessed or which authority is responsible.	Several collective agreements include equivalence clauses, allowing qualifications recognised as equivalent to satisfy qualification requirements for particular pay groups. However, the agreements reviewed do not specify which authority determines equivalence or how foreign qualifications are assessed.

Greece	Greek collective agreements frequently refer to qualifications, primarily to determine qualification allowances and, in some sectors, grading, pay scales and career progression. References are especially common in occupational agreements and in regulated professions, where qualifications are linked to statutory occupational profiles and licensing requirements.	Yes	Very Common	Specific national qualifications mentioned; NQF levels not mentioned; EQF levels not mentioned; Comparable qualifications mentioned; Other criteria (academic qualifications, licences, occupational profiles and work experience) mentioned.	Recognition of foreign qualifications is based on national recognition bodies rather than collective agreements. DOATAP recognises higher education qualifications, EOPPEP recognises vocational qualifications, while ATEEN is responsible for professional recognition under EU legislation. Once recognised, workers can access the corresponding wage scales and qualification allowances.	Collective agreements rely on the national institutional framework for recognising qualifications. Even in non-regulated professions, equivalence is generally required for social security and labour market purposes. DOATAP, EOPPEP and ATEEN are the competent authorities depending on the type of qualification, while collective agreements themselves do not establish recognition procedures.
Hungary	Qualification-related provisions are exceptional in Hungarian collective bargaining. Collective agreements generally regulate employment conditions without linking grades or pay directly to formal qualifications. The only significant exception identified is the extended sectoral agreement for the electricity industry, which uses a job evaluation system based on knowledge, education, responsibility and experience.	Yes	Rare	Specific national qualifications not mentioned; NQF levels not mentioned; EQF levels not mentioned; Comparable qualifications not mentioned; Other criteria (knowledge, educational attainment, vocational qualifications, professional experience and responsibility in the electricity sector only) mentioned.	Recognition of foreign qualifications takes place outside collective bargaining. Employers determine the relevance of qualifications through internal procedures, while regulated professions rely on statutory recognition mechanisms.	Collective agreements do not require comparability statements. Recognition is governed by Act C of 2001. For non-regulated professions employers decide whether foreign qualifications are suitable, whereas regulated professions require formal recognition by the Educational Authority or other competent authorities before access to the profession is granted.
Italy	Collective agreements in Italy systematically use job classification systems (inquadramento unico) to determine grading, remuneration and working conditions. Classification is primarily based on the tasks actually performed (objective qualification), while formal qualifications, educational degrees and certifications may serve as prerequisites for specific roles or facilitate career progression. Collective agreements generally do not use EQF levels to determine contractual grades.	Yes	Very Common	Only specific national qualifications mentioned. Collective agreements refer to national educational qualifications, vocational diplomas, specific professional certifications and, in some sectors, certified micro-credentials. They do not generally refer to National Qualifications Framework or EQF levels when determining contractual grades.	Workers holding foreign qualifications can demonstrate their suitability primarily through the tasks they perform. Italy's National System for the Certification of Competencies (SNCC) helps make qualifications and learning outcomes transparent, but contractual grading ultimately depends on the job performed rather than on the formal qualification itself.	In non-regulated professions, a formal comparability statement by a recognition authority is not strictly mandated by law or NCBAs to establish the contractual grade, because the NCBA relies on the employer's assignment of tasks. However, obtaining a comparability statement or having skills mapped to the EQF is highly expected and utilized in practice to demonstrate employability and to make the worker's professional capital legible to the employer during the hiring or placement process. Without such transparency tools, workers may struggle to prove they possess the specialized skills required for higher-level, better-paying classifications.

Latvia	References to qualifications are relatively rare and mainly confined to a few sectors (notably construction and the glass fibre industry). Where they occur, they are primarily used to determine remuneration through qualification groups linked to the National Occupations System, while many qualification-related rules are instead found in internal company remuneration policies rather than collective agreements.	Yes	Rare	Specific national qualifications not mentioned; NQF levels mentioned; EQF levels not mentioned; Comparable qualifications not mentioned; Other criteria not mentioned.	Recognition of foreign qualifications depends mainly on sectoral practice and employer requirements rather than collective agreements. Employers often rely on internationally recognised professional certificates (e.g. aviation, IT) or employer-based skills assessment and training. Automatic academic recognition exists with the Baltic and Benelux countries for certain qualifications.	Collective agreements do not require formal comparability statements. However, public higher education institutions and some employers (e.g. public procurement contractors) may require formal recognition of foreign qualifications. In most private-sector occupations, recognition depends on employer practice rather than collective bargaining.
Lithuania	References to qualifications in Lithuanian collective agreements are relatively rare and generally indirect. Where they occur, they are linked to job classification, remuneration systems, access to posts, training and competence requirements rather than to explicit qualification recognition mechanisms. Collective agreements usually supplement statutory or employer-level rules and do not establish separate procedures for recognising qualifications obtained abroad.	Yes	Rare	Specific national qualifications not mentioned; NQF levels not mentioned; EQF levels not mentioned; Comparable qualifications not mentioned; Other – qualifications referred to indirectly through education, professional preparation, qualification category, professional experience, skills, competences and job-related requirements.	No collective agreement provisions were identified on the recognition or comparability of qualifications obtained in another EU Member State. Consequently, workers with foreign qualifications generally rely on employers' internal assessment of qualifications, experience, competence and job requirements rather than collectively agreed rules. This approach provides flexibility but may also create uncertainty because classification depends on employer practices.	No systematic expectation of a formal comparability statement from a recognition authority was identified for non-regulated professions. Employers generally assess qualifications, competences and experience through their internal recruitment, job evaluation and remuneration systems. Evidence from employers and the State Labour Inspectorate indicates that qualifications obtained in another EU Member State are normally assessed using the same internal procedures as Lithuanian qualifications, although regulated professions remain subject to statutory recognition requirements.
Malta	Qualification-related provisions are widespread in the public sector but much less common in the private sector, reflecting Malta's highly decentralised bargaining system. Public-sector agreements systematically link qualifications to grading, salary scales and career progression, whereas private-sector agreements generally prioritise operational flexibility.	Yes	Common across public service /sector. Rare across private industry.	Specific national qualifications mentioned; NQF levels mentioned; EQF levels mentioned; Comparable qualifications mentioned; Other – hybrid approach combining qualifications, MQF levels and professional experience.	The applicable qualification framework significantly affects access to grades, remuneration and promotion. Foreign qualifications are generally recognised through the Malta Qualifications Recognition Information Centre (MQRIC), while agreements frequently combine qualifications with years of relevant professional experience when determining grading.	In public-sector agreements and some institutional agreements (e.g. MCAST), foreign or non-standard qualifications require a formal comparability statement from MQRIC. Because the MQF is seamlessly pegged to the EQF, credentials held by EU workers or those with EQF-aligned qualifications are transferred with minimal friction. This framework protects from nationality-based disadvantages and aligns with EU free movement laws. Outside these cases, requirements depend on the sector and employer, particularly for non-regulated professions.

Netherlands	References to qualifications are fairly common across Dutch collective agreements, although approaches differ by sector. Agreements frequently use educational qualifications, occupational diplomas, recognised work experience and, in some sectors, comparable foreign qualifications to determine job classification, remuneration and access to occupations.	Yes	Somewhat Common	Only specific national qualifications mentioned; National qualifications framework levels mentioned (rare); European qualification levels mentioned (rare); Open to comparable qualifications (rare). The vast majority of agreements refer to Dutch education system and sector-specific training institutions. References are typically made to specific national qualifications rather than to broader qualification frameworks.	Workers holding foreign qualifications may rely on equivalent diplomas recognised under sectoral agreements or demonstrate equivalent work experience. Some agreements explicitly recognise comparable EU qualifications, while others rely primarily on Dutch educational qualifications or recognised vocational diplomas.	Formal recognition depends on the sector. Where agreements specify recognised foreign diplomas or equivalent qualifications, workers may access the corresponding wage groups. In many non-regulated occupations, employers retain discretion unless the collective agreement explicitly requires recognised qualifications.
Poland	Collective agreements in Poland commonly refer to qualifications to determine grading, remuneration and working conditions, primarily through education levels, seniority requirements and qualification requirements for specific occupations. These references concern national education and qualification requirements rather than the NQF, the EQF or comparable foreign qualifications. The treatment of qualifications obtained in another Member State is generally not addressed in collective agreements.	Yes	Somewhat common	Collective agreements refer mainly to education levels, seniority requirements and occupation-specific qualification requirements. No references were identified to PQF levels, EQF levels or comparable foreign qualifications. Examples include qualification requirements linked to pay grades and career progression in multi-employer collective agreements for State Forests and the Ministry of National Defence.	The issue of qualifications obtained abroad is generally not addressed in collective agreements or social dialogue. As a result, collective agreements neither facilitate nor hinder the treatment of non-national qualifications.	For regulated professions, formal recognition follows the applicable legal framework. For non-regulated professions, whether a comparability statement is requested depends on the employer and is assessed on a case-by-case basis; there is no general requirement in collective agreements.
Portugal	References to qualifications are very common across Portuguese collective agreements, although their function varies by sector. Qualifications are frequently linked to job classification, remuneration and, in some cases, career progression, while many agreements also accept comparable foreign qualifications even where this is not stated explicitly.	Yes	Very Common	Specific national qualifications mentioned; NQF levels not mentioned; EQF levels not mentioned; Comparable qualifications mentioned; Other criteria not mentioned.	Where agreements specify national qualifications without explicit equivalence rules, foreign workers may experience difficulties demonstrating that they belong to a particular occupational category. Social partners highlighted that delays in qualification recognition and language requirements create the main practical barriers rather than collective agreements themselves.	For regulated professions and jobs requiring higher education qualifications, formal recognition is generally necessary. In non-regulated occupations, requirements depend on the sector and employer, with labour shortages often resulting in more flexible approaches to qualifications.

Romania	References to qualifications in Romanian collective agreements are uneven and generally indirect. Qualifications are usually reflected through occupational classifications, statutory education requirements or professional licences rather than explicit qualification frameworks. Company-level agreements play a greater role than sectoral agreements.	Yes	Uneven across sectors	Specific national qualifications not mentioned; NQF levels not mentioned; EQF levels not mentioned; Comparable qualifications not mentioned; Other – qualifications inferred through occupational categories, education levels, professional ranks and statutory qualification requirements. Generally, references to qualifications are indirect and uneven across sectors. They are more commonly inferred from occupational categories than explicitly linked to wage grades or remuneration. References to qualifications are more frequent in regulated occupations that depend on formal qualifications, attestations, professional certificates or educational attainment.	Recognition of foreign qualifications is governed by national legislation rather than collective agreements. Qualifications mainly affect access to regulated occupations, while many collective agreements focus instead on occupational classifications or employer-specific training arrangements.	Collective agreements do not require comparability statements for non-regulated professions. Recognition procedures are handled by CNRED or other competent authorities depending on the profession, while employers generally determine recruitment and classification practices outside collective bargaining.
Slovakia	Collective agreements frequently refer to qualifications to determine grading, remuneration and working conditions, mainly through education requirements, occupational classifications and qualification requirements linked to specific positions. References to the Slovak Qualifications Framework (SKKR) or the European Qualifications Framework (EQF) are not used. Collective agreements generally do not address the treatment of qualifications obtained in another Member State	Yes	Somewhat Common	Collective agreements mainly refer to education levels, occupational classifications and qualification requirements for specific positions. They do not refer to SKKR levels, EQF levels or comparable foreign qualifications.	The treatment of qualifications obtained in another Member State is generally not addressed in collective agreements. For non-regulated professions, decisions are typically left to employers.	For regulated professions, recognition follows the applicable legal framework. For non-regulated professions, whether evidence of comparability is requested depends on the employer; collective agreements do not establish a general requirement.
Spain	Spanish collective agreements systematically classify workers into professional groups using a combination of qualifications, professional skills, knowledge, work experience, autonomy, responsibility and job content. References to qualifications are widespread, although explicit references to the National Qualifications Framework remain relatively limited.	Yes	Very Common	Specific national qualifications mentioned; NQF levels mentioned; EQF levels not mentioned; Comparable qualifications not mentioned; Other criteria not mentioned.	Holders of foreign qualifications may demonstrate eligibility either through formal recognition of qualifications by the competent authorities or through certification of competences under the National Catalogue of Professional Competence Standards. Where professional groups are defined more broadly, employers assess candidates on the basis of skills, experience and recruitment procedures, irrespective of nationality.	No collective agreements reviewed require formal comparability statements where no qualification requirements exist. Where qualifications are required, recognition and certification are carried out through national administrative procedures rather than collective bargaining.

7. MS Education Providers - VET institutions and HE institutions

The following two tables present the matrix of education providers across VET and HE institutions. For the VET sector , a conservative approach (**Table 6**) and a comprehensive approach (**Table 7**) were considered. The **conservative approach** entirely excluded specialized schools and for mixed-curriculum institutions, that offer both vocational and general education, a **50%** weighting factor was applied to balance the representation of programs. This methodology yielded a baseline estimate of 27,762 VET institutions, as demonstrated in **Table 6**, column **'TotalVET_MS'**. As for the **comprehensive approach**, specialized schools were accounted and mixed curriculum were considered at 100% capacity. This methodology yielded a baseline estimate of 39,328 VET institutions, as demonstrated in **Table 7**, column **'TotalHE_MS'**. For VET, categorization ,institutions were simplified, into Public and Non-Public - with Government-dependent private and Private institution consolidated into the non-public category. In contrast, no distinction was made between public and non-public institutions within the HE sector. Upper Secondary Schools (general program only) were excluded from both approaches. In terms of sources, for the VET the source was Eurydice (https://eurydice.eacea.ec.europa.eu/eurypedia/austria/statistics-educational-institutions) as for the HE the source was EQAR, (https://www.eqar.eu/qa-results/download-data-sets/) Higher Education Institutions (HEIs) dataset. A final note to Hungary: for VET schools the differentiation in terms of public/non-public is not considered. Data relates to 2024.

7.1. Table 6 Conservative Approach

MS	MS	Vocation Educational School (VET)			Higher Education
(acr)	(Name)	Public	Non-Public	TotalVET_MS	TotalHE_MS
AT	Austria	196	137	333	79
DE	Belgium	1	1	2	7
FR		103	112	215	130
NL		145	330	475	39
BG	Bulgaria	1062	66	1128	135
HR	Croatia	182	22	204	138
CY	Cyprus	50	48	98	50
CZ	Czechia (Czech Republic)	491	190	681	66

DK	Denmark	374	1	375	45
EE	Estonia	30	3	33	20
FI	Finland	55	91	146	46
FR	France	3374	598	3972	615
DE	Germany	4003	1327	5330	507
EL	Greece	411	3	414	57
HU	Hungary	0	0	462	65
IE	Ireland	248		248	40
IT	Italy	2717	818	3535	259
LV	Latvia	39	8	47	54
LT	Lithuania	47	8	55	43
LU	Luxembourg	21	5	26	21
MT	Malta	2	0	2	16
NL	Netherlands	93	294	387	130
PL	Poland	3363	498	3861	545
PT	Portugal	229	45	274	288
RO	Romania	925	21	946	104
SK	Slovakia	300	108	408	33
SI	Slovenia	71	3	74	105
ES	Spain	2059	1324	3383	1341
SE	Sweden	415	233	648	48
Totals		**21006**	**6294**	**27762**	**5026**

7.2. Table 7 Comprehensive Approach

MS	MS	Vocation Educational School (VET)			Higher Education
(acr)	(Name)	Public	Non-Public	TotalVET_MS	TotalHE_MS
AT	Austria	196	137	333	79
DE	Belgium	1	2	3	7
FR		213	254	467	130
NL		327	745	1072	39
BG	Bulgaria	1345	93	1438	135
HR	Croatia	397	43	440	138
CY	Cyprus	54	44	98	50
CZ	Czechia (Czech Republic)	970	376	1346	66
DK	Denmark	374	1	375	45
EE	Estonia	30	3	33	20
FI	Finland	55	96	151	46
FR	France	3833	706	4539	615
DE	Germany	4003	1327	5330	507
EL	Greece	573	3	576	57
HU	Hungary	0	0	462	65
IE	Ireland	248	0	248	40
IT	Italy	5435	1637	7072	259
LV	Latvia	39	8	47	54
LT	Lithuania	47	8	55	43
LU	Luxembourg	50	5	55	21
MT	Malta	10	0	10	16

NL	Netherlands	187	525	712	130
PL	Poland	3363	498	3861	545
PT	Portugal	353	346	699	288
RO	Romania	926	21	947	104
SK	Slovakia	392	123	515	33
SI	Slovenia	143	6	149	105
ES	Spain	4119	2648	6767	1341
SE	Sweden	922	606	1528	48
Totals		**28605**	**10261**	**39328**	**5026**

8. MS: Annual Issuance Attestation Volume

The following table will represent the matrix of annual issuance attestation volume per institution type, that is, VET, Upper Secondary School and Higher Education. The source was Eurostat (https://ec.europa.eu/eurostat/databrowser/view/educ_uoe_grad01__custom_22230995/default/table). Data is related to 2024.

8.1. Table 8 MS Matrix of Annual Issuance Attestation Volume

MS	MS	Upper Secondary School	Vocation Educational School (VET)	Higher Education
(acr)	**(Name)**	**No.**	**No.**	**No.**
AT	Austria	19424	66109	90736
BE	Belgium	54074	68669	127052

BG	Bulgaria	49596	50427	48926
HR	Croatia	10706	27541	32658
CY	Cyprus	7548	1539	13407
CZ	Czechia (Czech Republic)	26479	69903	75470
DK	Denmark	46750	28533	81727
EE	Estonia	8691	2462	9434
FI	Finland	30523	63971	69517
FR	France	513601	411407	884985
DE	Germany	349560	295358	635338
EL	Greece	74303	33578	86619
HU	Hungary	47989	35761	69652
IE	Ireland	60838	19635	97948
IT	Italy	258208	290425	543773
LV	Latvia	11271	4227	13481
LT	Lithuania	20437	4119	22566
LU	Luxembourg	2544	3583	2242
MT	Malta	5983	2672	6210
NL	Netherlands	85123	135372	193463
PL	Poland	168327	168916	404685
PT	Portugal	76865	34772	101213
RO	Romania	79803	96270	127097
SK	Slovakia	14040	29691	37725
SI	Slovenia	6301	13814	17704
ES	Spain	288197	233588	590471
SE	Sweden	67321	31725	96277

	Sub Total	**2384502**	**2224067**	**4480376**
	Total			**9088945**

Annex 9: POLICY OPTIONS DISCARDED AT AN EARLY STAGE

The following Policy Options were considered but were discarded at an early stage:

a) **Setting up a European wide system of quality assurance of qualifications**

For proportionality and competence reasons, the option to set up European wide quality assurance of qualifications was discarded, as it would create additional bureaucracy and could be interpreted as interfering with the content of qualifications and therefore of the content of education and training offers. The accompanying measures, building on Council Recommendations, will provide continued support for quality assurance in the framework of implementing the EQF recommendation (which already includes an annex setting quality assurance principles for qualifications that are part of NQFs referenced to the EQF), the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), and the European Reference Framework for Quality Assurance in VET (EQAVET). This will further improve the mutual trust in education and training systems in the EU, thus benefitting the effectiveness of our main Policy Options.

b) **Harmonisation of the content and of the organisation of MS' education and training systems**

In addition, the high level of diversity in the content and in the organisation of education and training systems across the EU is outside the scope of considered options. These two elements fall under MS competence. Indeed, the TFEU excludes any harmonisation of the laws and regulations of the MS in the field of education and training.

c) Forbidding the issuance of paper credentials

Removing the legal value of paper diplomas/certificates was discarded during the process for several reasons:

- Citizens are not obliged to use the EUDI Wallet or Europass Wallet, and removing paper would bring burden on individuals without digital skills or without a mobile phone. In this way, it would not be coherent with the inclusivity and accessibility approach of EU policies.
- Diplomas and certificates are issued also for purposes other than the labour market. Prohibition of issuance of paper credentials under the legal basis envisaged for this initiative would pertain to the labour market use and MS would anyhow retain the possibility to issue paper credentials for other uses.
- EUDI Wallets and Europass Wallet are tools used within the EU. When citizens want to use their qualification credentials outside the EU the legal value of digital documents would not be guaranteed.

Forbidding paper would bring burden on individuals without digital skills or without a mobile phone. In this way, it would not be coherent with the inclusivity and accessibility approach of EU policies.

d) Limiting the digitalisation of qualifications to qualifications leading to regulated professions

Restricting the scope of the digitalisation of qualifications leading to a regulated profession (as needed for SPI Action 2) was discarded because there is no reliable way to define the scope of such an action or ensure effective implementation. Beyond the seven professions that are regulated at EU level, MS regulate professions in a highly unharmonised way so that a profession may be regulated in MS A but not in MS B. Since a qualification obtained in one MS can be used to access a regulated profession in another, even where that profession is not

itself regulated in the qualification's MS of origin, there is no fixed or stable set of qualifications that could reliably be designated as "leading to a regulated profession" across the Union. Any attempt to restrict scope on this basis would therefore have required an ad hoc, and potentially shifting, subset of qualifications to be identified, leaving MS without legal certainty as to which qualifications they are obliged to digitalise.

Annex 10: DRAFT MONITORING FRAMEWORK

As outlined in Section 9, the draft monitoring framework envisages several output, result and impact indicators to assess how the initiative is implemented and how successful it is in reaching objectives. Where possible, the draft framework relies on existing EU data sources. Where data are not currently available, it could be considered to adapt the existing surveys or administrative data or to carry targeted studies. Impact indicators measure broader labour-market outcomes and are intended primarily to support the ex-post evaluation of the initiative. As such, they are influenced by a range of external economic, labour-market and policy developments and should not be interpreted as being solely attributable to the initiative.

Table 1: Proposed output and result indicators

Specific Objective	Operational Objective	Type	Indicator	Data source / responsible party	Baseline	Frequency
Specific Objective 1 By the end of the transition period, labour market actors have access to reliable and comparable information on skills and qualifications issued in the EU.	**OO1:** By the end of the transition period, all MS have their NQF databases fully connected to Europass with standardised metadata	Output	Share of MS with NQF databases connected to Europass using the agreed metadata standard	Cedefop NQF Inventory / Europass governance data (existing, to be extended)	Year 0	Every 2 years
		Result	Share of employers reporting that accessing official qualification information from another Member State has become easier	European Company Survey (new module) or ad hoc survey (new)	Year 0	Every 2 years
		Result	Share of workers reporting that qualification information is easier to understand and compare across MS	Ad-hoc survey/studies commissioned by DG EMPL (new)	Year 0	Every 4 years
	OO2: By the end of the transition period, all MS submit up to date EQF referencing reports to guarantee the Europass comparison tool provides accurate, up-to-date equivalence information.	Output	Share of MS with EQF referencing reports updated within the previous five years	Commission / EQF Advisory Group (existing)	Year 0	Annual
		Result	Share of employers reporting that comparing the level and content of qualifications obtained in another Member State has become easier.	European Company Survey (new module) or ad hoc survey (new)	Year 0	Every 2 years
Specific Objective 2 By the end of the transition period, labour market actors in the EU can benefit from	**OO3:** By the end of the transition period, all MS issue all new qualifications (EQF levels 2–8) digitally via the EUDI Wallet	Output	Number of organisations registered to issue and/or verify digital qualification attestations through the EUDI Wallet	National authorities aggregated through the EUDI Wallet (new)	Year 1	Annual
		Output	Share of MS capable of issuing newly awarded qualifications through the EUDI Wallet	National authorities aggregated through the EUDI Wallet (new)	Year 1	Annual
		Result	Share of newly awarded EQF level 2–8 qualifications issued as digital credentials	National authorities aggregated through the EUDI Wallet (new)	Year 1	Annual
	OO4: By the end of the transition period, all	Output	Share of MS automatically providing	National authorities aggregated through	Year 1	Annual

interoperable and verifiable digital attestations of qualifications and skills.	MS can digitise and issue qualifications from the past 10 years via the EUDI Wallet automatically for cross border employment		digital attestations (for cross border employment) for qualifications awarded within the previous ten years	the EUDI Wallet (new)		
		Result	Average time required to obtain a digital attestation for a qualification awarded during the previous ten years (for cross border employment)	National authorities aggregated through the EUDI Wallet (new)	Year 1	Every 2 years
	OO5: By the end of the transition period, all MS can digitalise and issue qualifications awarded between the past 10 and 45 years into the EUDI Wallet within 14 days of request (e.g., for professional recognition procedures or for other employment in another MS purposes)	Output	Share of MS providing an on-demand service for the digitisation and issuance of qualifications awarded between 10 and 45 years previously through the EUDI Wallet	National authorities aggregated through the EUDI Wallet (new)	Year 1	Every 2 years
		Output	Number of requests for digitisation of qualifications awarded between 10 and 45 years previously processed through the EUDI Wallet	National authorities aggregated through the EUDI Wallet (new)	Year 1	Every 2 years
		Result	Share of requests for the digitisation and issuance of qualifications awarded between 10 and 45 years previously that are fulfilled within 14 days	National authorities aggregated through the EUDI Wallet (new)	Year 1	Every 2 years
	OO6: By the end of the transition period, digital qualifications issued through the EUDI Wallet can be automatically verified across MS.	Output	Share of MS connected to the EUDI Wallet trust framework enabling cross-border verification	Commission monitoring / EUDI Wallet trust framework (new)	Year 1	Annual
		Result	Share of mobile workers reporting successful cross-border verification of their digital qualifications when seeking employment in another Member State	Ad-hoc survey/ studies commissioned by DG EMPL (new)	Year 1	Every 3 years
	OO7: By the end of the transition period, all MS recognise the legal value EUDI Wallet-issued digital qualifications.	Output	Share of MS having adopted legislation recognising the legal validity of digital qualifications issued through the EUDI Wallet.	Commission monitoring	Year 2	One-off

Table 2: Proposed impact indicators

Impact indicator	Data source / responsible party	Baseline	Frequency
Share of workers reporting that qualification-related barriers discourage them from seeking	Ad-hoc survey/ studies commissioned by DG EMPL (new)	Year 1	Every 5/6 years

employment in another Member State			
Share of employers reporting that qualification-related barriers discourage them from recruiting candidates holding qualifications obtained in another Member State	European Company Survey - Eurofound (existing, extended)	Year 1	Every 5/6 years
Estimated transaction costs associated with cross-border qualification verification for employers and workers	Ad-hoc evaluation studies commissioned by DG EMPL; (existing methodology — periodic studies)	IA estimate	Every 7 years
Intra-EU labour mobility rate (working-age EU citizens residing in a Member State other than their country of citizenship)	EU-Labour Force Survey - Eurostat, existing); Annual Report on Intra-EU Labour Mobility – DG EMPL (existing)	Year 1	Quarterly/Annual

Annex 11: VISUALS FOR DIGITAL IMPLEMENTATION AND OVERVIEW OF THE CONTENT OF A DIGITAL QUALIFICATION UNDER SPI

1. **Overview of an example of an education and training provider issuing a digital qualification**



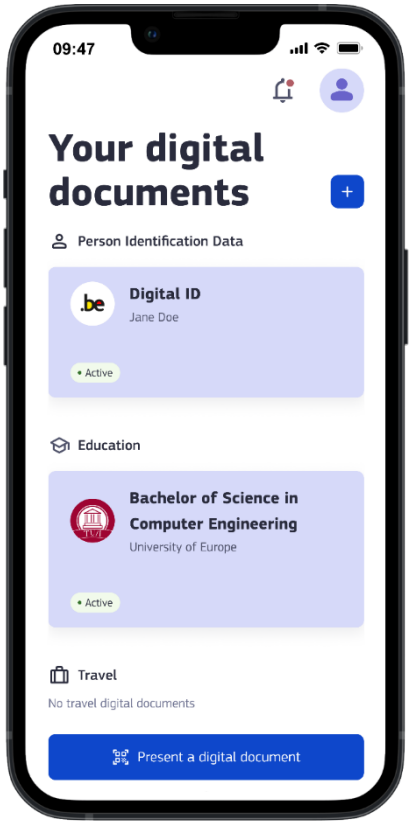
2. **Overview of an example of an EU jobseeker using their qualification to apply for a job in another EU Member State**

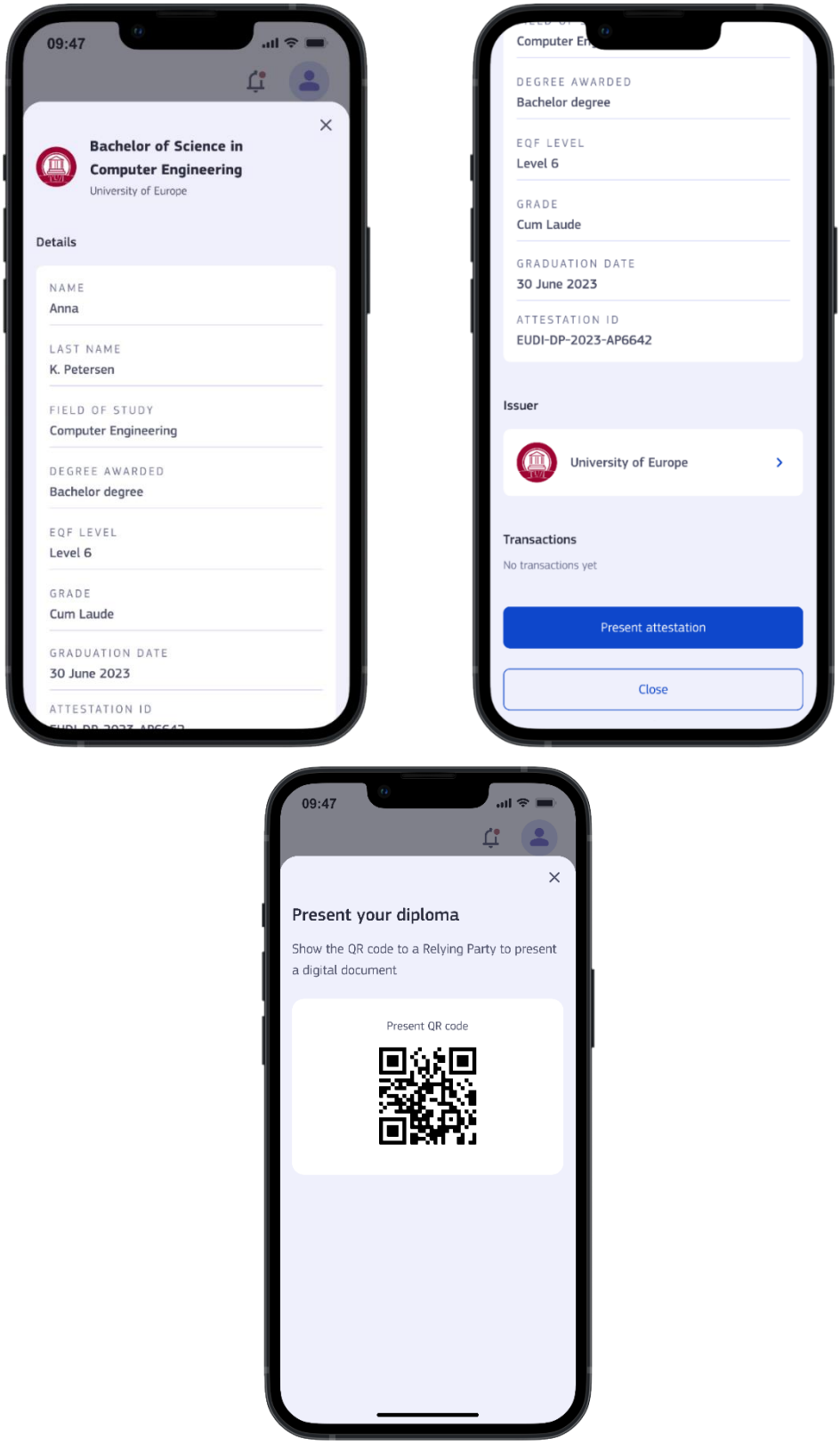


3. **Overview of an example of an employer requesting and verifying a digital qualification from another Member State**



Below is an example of a non-binding mock-up of what the digital qualification in the EUDI Wallet *could* look like so as not to prejudge the outcome of any future discussions to determine the format, structure, etc.




09:47
Bachelor of Science in Computer Engineering
University of Europe
Details
NAME
Anna
LAST NAME
K. Petersen
FIELD OF STUDY
Computer Engineering
DEGREE AWARDED
Bachelor degree
EQF LEVEL
Level 6
GRADE
Cum Laude
GRADUATION DATE
30 June 2023
ATTESTATION ID
DEGREE AWARDED
Bachelor degree
EQF LEVEL
Level 6
GRADE
Cum Laude
GRADUATION DATE
30 June 2023
ATTESTATION ID
EUDI-DP-2023-AP6642
Issuer
University of Europe
Transactions
No transactions yet
Present attestation
Close
09:47
Present your diploma
Show the QR code to a Relying Party to present a digital document
Present QR code

4. Data elements for a digital qualification awarded after SPI (all POs) and in the past 10 years (PO2)

The content of future (and of the past 10 years for PO2) digital qualifications was the result of a consultation with key stakeholder groups: the survey of issuers of qualifications and the survey addressed to the EQF AG. The content of the qualification was also based on suggestions from the DC4EU project. The content is technology agnostic. The key principle when designing the scope of the attestations was to balance the need of employers for information and the possibility for issuers to provide this data.

In the survey of issuers of qualifications and in the EQF AG surveys, the majority of respondents shared that the content of the future digital qualification attestation should align with Annex VI of the EQF Recommendation and/or the Annex I of the Recommendation on Micro-Credentials, which overlap greatly in their content. Regarding the survey of issuers, out of 574 total respondents, 34.49% (n=198) selected Annex I, 25.26% (n=145) selected Annex VI which account for the majority of respondents as 33.10% (n=190) responded "Don't know/Not applicable". As for the EQF AG survey, out of 15 total respondents, 46.67% (n=7) selected Annex I and 53.33% (n=8) selected Annex VI (more than one option could be selected).

In addition to these fields, the trust framework of the EUDI/Europass wallet is made a mandatory field: this covers the URI on accreditation, the URI on the qualification (which can contain additional information) and the URI of the awarding body.

Proposed mandatory data fields for digital qualification attestations:

FIELD NAME	DESCRIPTION
Given Name	The holder's given name
Family Name	The holder's family name
Date of Birth	The holder's date of birth
Birthplace	The country as an alpha-2 country code as specified ISO 3166-1, or the state, province, district, or local area or the municipality, city, town, or village where the user to whom the holder's data relates was born
Nationality	One or more alpha-2 country codes as specified in ISO 3166-1, representing the nationality (or nationalities) of the holder
Qualification Title	The official title of the qualification provided in at least one specified language
Qualification Title in commonly agreed language	The official title in commonly agreed language

Field of Education and/or Training	The field of study, classified according to the ISCED fields of Education and Training (ISCED-F-2013)
Valid From	The date and time when the digital qualification attestation was issued
Valid Until	The date and time the digital qualification attestation ceases to be valid
EQF Level	The applicable level of the European Qualification Framework
NQF Level	The qualification level as specified in the national qualification framework
Issuer	The legal identifier, name and location of the issuing organisation which issued the digital qualification attestation
Awarding Body	The legal identifier, name and location of the awarding body that awarded the qualification
Country of Award	The Member State in which the qualification was awarded
Where applicable, Region of Award	The code of the region in which the qualification was awarded, where applicable
Date of Award	The date on which the qualification was officially awarded
Learning Outcomes[186] OR Description of the Qualification[187]	Summary of learning outcomes OR description of the qualification composed of knowledge, skills and responsibility and autonomy
Accreditation Details	Information on the accreditation of the awarding body, including jurisdiction and the relevant regulatory

[186] To be provided for qualifications issued as of [date of entry of application of the Regulation] or, if available in Member State's NQF, before that date. Learning outcomes shall be described in accordance with the European Guidelines for the development and writing of short, learning outcomes-based descriptions of qualifications, see https://www.cedefop.europa.eu/files/6222_en.pdf

[187] Description shall be provided where no Learning Outcome is available. However, for digital qualification attestations awarded between [date of adoption date of this regulation minus 10 years] and [date of entry of application of the Regulation], the description of qualification becomes an optional data field.

	framework
Professional Experience, where applicable	Professional experience gained to obtain the qualification
Professional Title, where applicable	Professional title obtained as a result of qualification being awarded
Access Rights, where applicable	A statement on the access rights to regulated professions conferred by the qualification

Proposed optional data fields for digital qualification attestations:

FIELD NAME	DESCRIPTION
Holder's National ID and the country	National ID and country issuing it
URI to qualification standard	URI to qualification standard published in a qualification database such as Europass[188]
ESCO Skills reference	Reference to European Skills, Competences, and Occupations classification
Duration of Study	The official duration of the learning programme expressed in time and credits of the European Credit Transfer and Accumulation System[189]
Grades / Marks	The grades or marks achieved, accompanied by an explanation of the grading scale used
Mode of Learning	The mode of delivery, such as full-time, part-time, distance learning
Main subjects / modules	A list of the main subjects or modules covered by the programme of study
Practical Training	Details of a mandatory practical training that was completed
Assessment Methods	Information on the methods used for assessment (e.g. examination, project work)

[188] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018D0646

[189] https://education.ec.europa.eu/education-levels/higher-education/inclusive-and-connected-higher-education/european-credit-transfer-and-accumulation-system

Language of Study	The primary language(s) in which the programme was taught
Thesis/ Final Project Title	The title of the final thesis or project, if applicable
International Mobility	Information on any international mobility periods undertaken as a part of the programme

5. Data elements for a digital qualification awarded before SPI (all POs)

The content of past digital qualifications is also the result of a consultation with key stakeholder groups: the survey of issuers of qualifications and the survey addressed to the EQF AG. The content of the qualification was also based on suggestions from the DC4EU project. The content is technology neutral.

While the same approach to the reuse of Annex VI of the EQF Recommendation and Annex I of the Recommendation on Micro-Credentials was taken, more fields have been identified as optional, to avoid being burdensome for the issuers in gathering data *a posteriori* when it does not exist. In addition, the EQF and NQF levels are optional and should only be included when they existed. Therefore, there is no expectation that MS assign NQF levels when they did not yet have an NQF (for example, a qualification issued in the 1980s would not be part of an NQF as NQFs were not yet a policy concept).

The key difference between these attestations and the new digital qualifications is that there is a mandatory proof of a qualification to be embedded in the digital qualification, so that an employer can also see the original information on which the digitalisation happened.

To avoid any burden on issuers, there is no mandatory trust framework to link to, as the verification happens before the issuance.

Proposed minimum mandatory data fields for digital qualification attestation already awarded

FIELD NAME	DESCRIPTION
Given Name	The holder's given name
Family Name	The holder's family name
Date of Birth	The holder's date of birth
Birthplace	The country as an alpha-2 country code as specified ISO 3166-1, or the state, province, district, or local area or the municipality, city, town, or village where the user to whom the holder's data relates

	was born
Nationality	One or more alpha-2 country codes as specified in ISO 3166-1 representing the nationality (nationalities) od a holder
Qualification Title	The official title of the qualification provided in at least one language
Valid From	The date and time when the digital qualification attestation was issued
Valid Until	The date and time the digital qualification attestation ceases to be valid
EQF Level (if application)	If available, and only for qualifications awarded after 2008 and in accordance with the relevant national qualifications framework referencing to the European Qualifications Framework: the applicable level of the European Qualification Framework
NQF Level (if applicable)	If available, for the qualification specified in the national qualifications framework
Issuer	The legal identifier, name and location of the issuing organisation which issued the digital qualification attestation
Awarding Body	The legal identifier, name and location of the awarding body that awarded the qualification
Country of Award	The Member State in which the qualification was awarded
Where applicable, Region of Award	The code of the region in which the qualification was awarded, where applicable
Date of Award	The date on which the qualification was

	officially awarded
Accreditation Evidence	Formal evidence of the awarding body's accreditation at the time of award, including, where the awarding body no longer exists in its original legal form, evidence of succession establishing the chain of continuity to the entity providing the evidence.
Professional Experience, where applicable	Professional experience gained to obtain the qualification
Professional Title, where applicable	Professional title obtained as a result of qualification being awarded
Access Rights, where applicable	A statement on the access rights to regulated professions conferred by the qualification

Proposed optional data fields for digital qualifications attestation:

FIELD NAME	DESCRIPTION
Holder's National ID and the country	National ID and country issuing it
Qualification Title in a commonly agreed language	The official title in commonly agreed language
Field of Education and/or Training	The field of study, classified according to the ISCED fields of Education and Training (ISCED-F-2013)
Description of the Qualification[190]	Description of the qualification composed of knowledge, skills and responsibility and autonomy
ESCO Skills reference	Reference to European Skills, Competences, and Occupations classification

[190] To be provided for qualifications issued as of [date of entry of application of the Regulation] or, if available in Member State's NQF, before that date. Leaning outcomes shall be described in accordance with the European Guidelines for the development and writing of short, learning outcomes-based descriptions of qualifications, see https://www.cedefop.europa.eu/files/6222_en.pdf

Duration of Study	The official duration of the learning programme expressed in time and credits of the European Credit Transfer and Accumulation System[191]
Grades / Marks	The grades or marks achieved, accompanied by an explanation of the grading scale used
Copy of Original Qualification Document	An embedded image or scan of the original physical qualification issued to the holder, where available
Mode of Learning	The mode of delivery, such as full-time, part-time, distance learning
Main subjects / modules	A list of the main subjects or modules covered by the programme of study
Practical Training	Details of a mandatory practical training that was completed
Assessment Methods	Information on the methods used for assessment (e.g. examination, project work)
Language	The primary language(s) in which the programme was taught
Thesis/ Final Project Title	The title of the final thesis or project, if applicable
International Mobility	Information on any international mobility periods undertaken as a part of the programme

[191] https://education.ec.europa.eu/education-levels/higher-education/inclusive-and-connected-higher-education/european-credit-transfer-and-accumulation-system

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Annex 13: COMBINED IMPACTS OF SPI PREFERRED OPTIONS UNDER ACTION 1, 2, AND 3

When combined, the preferred options under Actions 1, 2 and 3 are expected to generate substantial administrative cost savings and broader economic and social benefits by improving the transparency, comparability, portability and recognition of qualifications and skills across the EU labour market.

As explained in more detail in the dedicated impact assessments, the three Actions address different aspects of the same underlying problem: difficulties in presenting, verifying and recognising qualifications and skills across borders. Action 1 focuses on ensuring that labour market actors in the EU have access to simplified, effective, digital and cost-efficient ways to carry, prove, read, understand and compare qualifications and skills obtained in another MS, Action 2 on the cross-border recognition of qualifications required to access regulated professions, and Action 3 on the recognition of qualifications of third-country nationals.

The combined effect of the SPI is to reduce information asymmetries, administrative burden and recognition delays across borders supporting the creation of a genuine Single Market for talent. Together, the measures included in the preferred policy options for each of the actions contribute to improved labour mobility and skills matching. This is particularly relevant given the significantly higher overqualification rates observed among EU mobile workers (31.3%) and third-country nationals (39.4%) compared to domestic workers (20.2%).

The anticipated outcomes of the preferred policy options are intrinsically interrelated and mutually reinforcing in various ways.

- Action 1 acts as a critical enabler for Action 2 as the availability of interoperable, secure and verifiable digital qualifications is crucial to allow for faster and less burdensome cross-border recognition processes under the PQD.
- Conversely, the preferred policy option under Action 2 is expected to provide a concrete and reliable pathway for the benefits of digital credentials to materialise. Qualifications benefiting from automatic recognition account for almost half of all establishment recognition cases under the PQD. By ensuring that these qualifications are systematically issued and accepted in digital credential format, the preferred option would create a sizeable and predictable volume of use from the outset, thereby supporting the deployment and practical benefits of digital credentials across recognition procedures.
- The preferred options under Action 1 and 2 also support the implementation of Action 3 as the creation of a unified digital workflow for the recognition of qualifications of EU citizens, linking the various competent authorities in the MS, facilitates the interoperability between national databases on third-country qualifications and recognition.
- In turn, Action 3 ensures that third-country nationals benefit from a similarly robust, albeit specific, legal framework as EU citizens for the recognition of their qualifications, thereby establishing a more equitable level playing field in the EU labour market.
- By working together to establish common approaches for the assessment and recognition of qualifications obtained outside the EU in the context of Action 3, MS may further strengthen mutual trust and cooperation between their competent authorities. This is expected to reinforce the practical application of the principle of

mutual recognition, which is a cornerstone of the system for the recognition of professional qualifications within the EU, and may contribute to a more efficient, consistent and less burdensome treatment of qualifications obtained in other MS.

With respect to implementation costs, the preferred options yield significant synergies through two main channels:

- By establishing common information standards, standards for digital credentials, verification mechanisms, and qualification databases, the initiative reduces the cost of presenting, verifying, and recognizing qualifications. As adoption grows, the value of these systems for workers, employers, and public authorities increases—creating network effects and economies of scale and maximizing the return on digital infrastructure investments.
- Using the EQF as a universal reference framework across all three actions makes qualifications easier to compare, understand, and verify, minimizing information asymmetries and fostering greater trust within the EU. Furthermore, widespread adoption of the EQF within the Single Market incentivizes non-EU partners to relate to it, simplifying the integration and recognition of third-country qualifications.

The combined actions are expected to generate substantial economic benefits.

Action 1 is estimated to generate quantified direct benefits of approximately EUR 164–336 million over the period 2026–2040, primarily through reduced administrative costs associated with the presentation, assessment and verification of qualifications across borders. Employers are expected to benefit from lower costs for verifying and understanding qualifications from other MS, while workers will benefit from fewer and cheaper comparability procedures. Issuers of qualifications will also benefit from reduced administrative burdens as digital attestations enable automatic verification, reducing the need to respond to third-party requests. With its focus on digitalising NQF qualifications (which are most labour market relevant), the action directs the investment to the segment with the highest return, with positive spillovers on national labour markets and the area of further learning. Indirect benefits can also be expected: as the action contributes positively to the functioning of the internal market and EU competitiveness: it is expected to facilitate cross-border hiring with some effect on skills mismatches and improved labour market allocation.

Within the specific context of regulated professions, **Action 2** is expected to generate annual administrative cost savings of approximately EUR 28.7 million for applicants, competent authorities and, where they support recognition procedures on behalf of applicants, employers. In addition, they are projected to deliver an additional EUR 136.6 million per year in monetised time savings resulting from faster access to the labour market for professionals seeking recognition in another Member State. Taken together, these savings are estimated to amount to approximately EUR 1.6 billion in present value terms over the period 2029–2040. Swifter, cheaper and less burdensome recognition procedures are also expected to generate considerable indirect economic and social impacts, supporting firm-level competitiveness, allocative efficiency of skills in the Single Market, improved employment opportunities, and increased resilience of essential social services such as healthcare.

Targeted specifically at third-country nationals, **Action 3** is expected to reduce administrative costs for applicants and CAs by over EUR 22 million/year, resulting in cumulative administrative savings of approximately EUR 231 million between 2029 and 2040. In addition, employers would benefit from a reduction of around 25% in administrative costs for applications under the general system and of approximately 42.5% for automatically

recognised qualifications. At constant recruitment levels, the reduction of employer-borne recruitment costs is estimated at over EUR 20 million/year, resulting in a cumulative cost reduction of EUR 207 million between 2029 and 2040. PO3 would also reduce the processing time of recognition applications considerably, allowing qualified TCNs to exercise a regulated profession of their choice more quickly (by between 9 to 10 months depending on the recognition regime). This generates monetised time savings for the applicants, which in the aggregate are estimated at approximately EUR 300 million/year or slightly over EUR 3 billion from 2029 to 2040.

Better integration of third-country nationals in the Single Market is also expected to generate indirect but sizeable positive effects on firm-level competitiveness by facilitating access to a wider, geographically diverse pool of qualified applicants and alleviating critical shortages. At macro-economic level, the resulting increase in the overall labour supply and improved skills matching contributes to economic growth. From a social perspective, facilitating recognition of qualifications of third country nationals contributes to upward career mobility, improved long-term income security and, at macro-level, increased resilience of social services by addressing critical labour shortages in various sectors.

These estimated direct cost savings and anticipated economic and social benefits are not designed for aggregation, as some beneficiaries and impact channels overlap. Nevertheless, they point consistently towards substantial reductions in transaction costs and significant gains from earlier labour-market entry and improved skills utilisation.

The preferred options presented build on an independently existing IT infrastructure (the EUDI Wallet) that is considered in the baseline of Action 1 and Action 2. Common digital tools, interoperable systems and common information standards reduce duplication of effort and increase the benefits generated by implementation expenditure. As a result, the overall initiative is expected to be more cost-effective than separate interventions addressing each area individually.

The distribution of costs and benefits is uneven by design. Public administrations bear a significant share of implementation costs (which however are more effectively invested in the proposed coordinated manner compared to uncoordinated actions by MS), while a large share of the benefits accrues to workers and employers through reduced administrative burdens, lower recruitment costs and faster access to employment opportunities. This reflects the objective of removing market frictions and improving labour-market functioning.

The main implementation challenge relates to ensuring interoperability and coordination across the different digital systems and governance arrangements established under the Initiative. Failure to achieve sufficient interoperability could reduce some of the expected efficiency gains and increase administrative complexity. These challenges are addressed by the use of common standards, shared digital infrastructure and phased implementation.

In general, the Skills Portability Initiative generates substantial synergies and economies of scale. By simultaneously addressing the presentation, verification and recognition of qualifications across different labour-market contexts, the three Actions deliver greater economic, administrative and social benefits than would be achieved through their separate implementation.

Annex 14: DESCRIPTORS DEFINING LEVELS IN THE EUROPEAN QUALIFICATIONS FRAMEWORK (EQF) – ANNEX II OF THE COUNCIL RECOMMENDATION ON THE EQF

Each of the 8 levels is defined by a set of descriptors indicating the learning outcomes relevant to qualifications at that level in any system of qualifications.			
	Knowledge	Skills	Responsibility/ Autonomy
	In the context of EQF, knowledge is described as theoretical and/or factual.	In the context of EQF, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments).	
Level 1 The learning outcomes relevant to Level 1 are	basic general knowledge	basic skills required to carry out simple tasks	work or study under direct supervision in a structured context
Level 2 The learning outcomes relevant to Level 2 are	basic factual knowledge of a field of work or study	basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools	work or study under supervision with some autonomy
Level 3 The learning outcomes relevant to Level 3 are	knowledge of facts, principles, processes and general concepts, in a field of work or study	a range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	take responsibility for completion of tasks in work or study adapt own behaviour to circumstances in solving problems
Level 4 The learning outcomes relevant to Level 4 are	factual and theoretical knowledge in broad contexts within a field of work or study	a range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities
Level 5* The learning outcomes relevant to Level 5 are	comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	a comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	exercise management and supervision in contexts of work or study activities where there is unpredictable change review and develop performance of self and others

Level 6** The learning outcomes relevant to Level 6 are	advanced knowledge of a field of work or study, involving a critical understanding of theories and principles	advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study	manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts take responsibility for managing professional development of individuals and groups
Level 7*** The learning outcomes relevant to Level 7 are	highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research critical awareness of knowledge issues in a field and at the interface between different fields	specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields	manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams
Level 8**** The learning outcomes relevant to Level 8 are	knowledge at the most advanced frontier of a field of work or study and at the interface between fields	the most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice	demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research

Compatibility with the Framework for Qualifications of the European Higher Education Area

The Framework for Qualifications of the European Higher Education Area provides descriptors for cycles. Each cycle descriptor offers a generic statement of typical expectations of achievements and abilities associated with qualifications that represent the end of that cycle.

* The descriptor for the higher education short cycle (within or linked to the first cycle), corresponds to the learning outcomes for EQF level 5.

** The descriptor for the first cycle corresponds to the learning outcomes for EQF level 6.

*** The descriptor for the second cycle corresponds to the learning outcomes for EQF level 7.

**** The descriptor for the third cycle corresponds to the learning outcomes for EQF level 8.