




# New elements of qualification systems for skills development



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## 1. Executive summary

The dynamic changes in the labour market as a result of technological progress and the pressure for a new organisation of the division of labour, not least the increasing impact of digitalisation on education, trigger the need to make the education and qualification system more flexible.

It is no coincidence that the European Union has almost simultaneously initiated a debate on the need to promote micro-credentials and individual learning accounts (ILAs). Expert discussions have led to the simultaneous adoption of the EU Council Recommendations to support both of these instruments in June 2022. Both these topics will be covered by analytical studies of the European Centre for the Development of Vocational Training (Cedefop) which will further explore experiences of countries that have advanced in the process of introducing these instruments, support expert discussions, the development of legislation and the subsequent implementation of measures in the EU. Member States will have to inform the European Commission of their actions by December 2023.

Micro-credentials (MCs) are a response to the growing need for the provision of well-designed, small-scale learning that responds to the learner's interest in acquiring new specialised knowledge and skills. They are also a recognition that traditional vocational training with almost lifelong relevance is not possible in the new context and that lifelong learning is a competitive necessity. Digital Badges (DBs) as specific evidence of learning outcomes and the acquisition of relevant skills are more than just a marketing ploy by education providers. Although they are still mostly linked to MCs, they are also a signal of change to come. Standardised DBs accumulated in a dedicated platform or individual digital repository may undoubtedly become the dominant approach to documenting qualifications and their deepening or broadening. In many countries, and for example in Poland and Austria, there are already information portals or digital learning platforms (DLPs) offering also information on training for the relevant qualification and on support schemes to pay for the training offered. There is no doubt that such a platform needs to be created in Slovakia as well.

The European Commission is also responding to global developments in the field of digital certificates (DCs) in education through the Europass platform. The new European Learning Model allows institutions to issue certificates of achievement for learning activities in different learning environments (formal, non-formal and informal) and for participants to store them in their profile or share them using other online tools - for example, by email directly with a future employer or learning institution. In order for Slovakia to be able to use the full potential of these electronic services in the future (e.g. in formal education in the form of certificate supplements), steps will be needed to add the necessary information to the Europass portal databases (e.g. qualification profiles and learning opportunities, and to remove potential obstacles, e.g. legislative ones) that could hinder further developments for digitalization of this area.

Individual learning accounts are a tool to increase the motivation to learn after entering the labour market beyond the education traditionally provided by employers. By lowering the financial barrier, it is expected that there will be a higher demand for appropriate learning activities and also a higher supply with both attractive content and new forms of learning. Hybrid and online forms will potentially allow overcoming barriers to access to education for populations living outside large cities.

Last but not least, the importance of these new tools also lies in supporting the acquisition of skills by the population of the Slovak Republic that are in the public interest. For example, if Slovakia wants to exploit the potential of information and communication technologies in the management of the state and provision of public services, and if it also wants to overcome the digital skills gap in part of the population, micro-credentials, digital certificates and individual learning accounts should become the subject of a public debate followed by action. This study offers policy makers more detailed information on what is happening with regard to MCs and DCs (chapter 3.5) and ILAs (chapter 4.4), and recommendations to support their implementation.

### **Key recommendations for the promotion of micro-certificates and digital certificates in the Slovak Republic**

The fact that Slovakia is in the process of drafting new laws to support lifelong learning and adult learning creates favourable conditions for legal support of MC and DB and for addressing systemic weaknesses in our qualification system.

The definition of MC adopted by the Slovak legislation should not be in direct conflict with the current European definition. It should therefore also be accepted here that MCs can be designed and issued by a variety of education providers, and that MCs can be the result of learning in any learning environment - i.e. formal education, non-formal or informal learning. At the same time, the risk of inappropriate regulation should be avoided. A sensible compromise is the draft definition of MC for the purposes of the LLL Act set out in Annex 1. This definition follows the approach for the introduction of MCs proposed in the already approved LLL&G Strategy, based on the duality of two terms: micro-certificate in general, with minimum regulation, and micro-certificate which leads to the award of a qualification ("micro-qualification") and is therefore subject to strict regulation. At the same time, the implementation of MCs and DBs requires agreement on the mandatory data contained in their evidence (see the Proposal of common "European" requirements for the information to be provided in Box 3). If MCs issued in Slovakia are to be accepted throughout the EU, compliance with the experts' proposed "European" principles for enhancing the credibility of MCs must also be taken into account (see Box 4).

The problem of credibility, particularly for MCs leading to qualifications, also points to systemic weaknesses in our qualifications system. Slovakia has so far:

- systematically addressed the problem of quality assurance only in higher education, but the system of quality assurance in the acquisition of qualifications in secondary education and non-formal learning for the labour market has not yet been set up;
- is still piloting procedures for validating non-formal and informal learning (learning) through the ESF project 'System for Verification of Qualifications' (SVQ) and has not yet built up institutions to support internal and external quality control, which is a prerequisite for validation ('verification of qualifications' in the terminology of the SVQ project);
- has failed to set up procedures for the inclusion of qualifications acquired outside the school system in the national qualifications framework (NQF).
- It can therefore be concluded that the most pressing task is to develop guidelines for the inclusion of micro-certificates in the NQF. Equally important in this context is the completion of referencing of the NQF (SKKR) to the European Qualifications Framework (EQF) as recommended by the Council<sup>1</sup>.

We also recommend that the draft LLL act should support the equivalence and introduction of digital certificates and standardisation of digital badges. There is a need for a digital learning platform offering information and access to training for relevant qualifications, information on support schemes to cover the costs of the training offered, and the possibility of creating and managing digital badges where appropriate. The infrastructure for issuing digital certificates is available through the Europass portal. The technological development of platforms and online spaces that allow learners to easily collect, manage and share their certificates and employers to search and analyse the metadata contained in open badges and digital certificates is rapid. Slovakia should therefore act, take advantage of foreign experience and, taking into account the Annex VI of the Council Recommendation on EQF<sup>2</sup>, set mandatory and optional data field elements for the electronic publication of qualifications information.


Recommendations to support the introduction of micro-certificates and digital badges and certificates are elaborated in more details in Chapter 3.5.

### **Key recommendations for the introduction of individual learning accounts in the Slovak Republic**

We recommend a nationwide non-refundable pilot scheme of €200 learning vouchers with a pre-determined budget for the working age population, excluding those in formal education. The resources would be used not only for non-formal learning itself, but also for support activities such as career counselling or validation of prior learning. The main objective is to popularise the tool, therefore no limitation for participation is recommended. The substitution of public funding for private funding remains a risk, so it is essential to carefully collect demographic data on participants in the pilot scheme for possible eligibility adjustments in the subsequent cycle. A single, easy-to-navigate information portal on the

1 [https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:32017H0615\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:32017H0615(01)&from=EN), Annex III

2 [https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:32017H0615\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:32017H0615(01)&from=EN), Annex IV



range of offered training activities must be an essential complementary element.

Experience from abroad shows that currently there is no successfully proven scheme that is fully transferable to the Slovak environment. At the same time, there is enough impetus for learning about the basic principles of implementing ILA, which is discussed in more detail in Chapter 4.4. We believe that this will contribute to finding a compromise between the ambition of the currently intended goals, the existing institutional constraints and the possibilities of available public resources.

## 2. Background

Radical technological and labour market changes due to emerging digitalisation and automation, as well as the need to respond to the risk of climate change, make it essential to take measures to promote greater flexibility in qualifications systems and targeted support for adult learning at both national and European level. The European Skills Agenda for Sustainable Competitiveness, Social Fairness and Resilience<sup>3</sup>, presented to the public on 1 July 2020, replaces and refines the New Skills Agenda for Europe<sup>4</sup> of 2016. It is also in line with other policy documents, in particular the principles of the European Pillar of Social Rights (EPSR)<sup>5</sup>, as its very first principle emphasises the right to quality and inclusive education, training and lifelong learning, with the aim of creating the European Learning Area by 2025<sup>6</sup>. It is also linked to the Council Recommendation of 24 November 2020 on vocational education and training (VET) for sustainable competitiveness, social justice and resilience<sup>7</sup>, which sets out 21 points for the transformation of VET systems and three objectives for 2025 at EU level:

- the share of VET graduates in employment should be at least 82%;
- 60% of recent VET graduates should take advantage of work-based learning opportunities during their VET, covering all forms of work-based learning;<sup>8</sup>
- 8% of VET students should benefit from learning mobility abroad. The 2021 Action Plan for the implementation of the EPSR set out three main objectives to be achieved across Europe by 2030. Slovakia's national targets were subsequently approved by the government in January 2022. The following table compares the EU and Slovak national targets.

**Table 1**

**Comparison of the EU targets and Slovakia's national targets 2030 for the EPSR<sup>9</sup>**

	<b>Employability (age 20-64)</b>	<b>Adult education/ learning<sup>10</sup></b>	<b>Reduction of poverty or social exclusion  (decrease in thou- sands of persons)<sup>11</sup></b>
EU27 target	78%	60%	15 000
Slovakia's target	76.5%	50%	70%
EU27 (latest available data)	73.1 (2021)	43.7% (2016)	-
Slovakia (latest available data)	74.6 (2021)	46.1% (2016)	-

Source: Definition of national targets for 2030 in the context of the EPSR Action Plan, Eurostat (LFSI\_EMP\_A, TRN-AES\_100, ILC\_PEPS01N)

One of the partial objectives of the Action Plan for the implementation of the EPSR concerns digital

3 <https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:52020DC0274&> .

4 <https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:52016DC0381&from=EN> .

5 European Pillar of Social Rights in 20 principles, [https://ec.europa.eu/info/strategy/priorities-2019-2024/economy-works-people/jobs-growth-and-investment/european-pillar-social-rights/european-pillar-social-rights-20-principles\\_sk](https://ec.europa.eu/info/strategy/priorities-2019-2024/economy-works-people/jobs-growth-and-investment/european-pillar-social-rights/european-pillar-social-rights-20-principles_sk) .

6 <https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:52020DC0625&from=EN> .

7 [https://eur-lex.europa.eu/legal-content/SK/TXT/?uri=CELEX:32020H1202\(01\)](https://eur-lex.europa.eu/legal-content/SK/TXT/?uri=CELEX:32020H1202(01)) .

8 For the Slovak terminology of the term "workbased learning" (WBL) see for example the publication issued on the occasion of the Slovak Presidency of the Council of the EU; [https://www.cedefop.europa.eu/files/8102\\_sk.pdf](https://www.cedefop.europa.eu/files/8102_sk.pdf)

9 The target for the EU27 is a weighted average of the Member States. This means that the actual target value of the indicator is predominantly determined by populous countries such as France, Italy and Germany. Smaller countries may therefore have national targets that do not meet the EU target, without jeopardising the EU-wide target.

10 The data measuring adult participation in education with a reference period of four weeks prior to the survey come from the Labour Force Survey (LFS), which is conducted quarterly. For the reference period of the last twelve months, the Adult Education Survey (AES), conducted every 5 years, is used as the reference period. The last measurement was carried out in 2022 (postponed by one year due to the pandemic) and the data will be available during 2023. From 2022 onwards, a question on adult education with a longer reference frame will be reflected every two years in the LFS, precisely because of the inclusion of this indicator among the EPSR indicators.

11 As a standard, the indicator measures the proportion of the population at risk of poverty or social exclusion. Slovakia had a value of 15.6% in 2021, the EU27 average was 21.7%.

skills. The European objective has been set at 80% by 2030 for the indicator “share of the population aged 16-74 with at least basic digital skills “. Slovakia has set a target of 70% by 2030.<sup>12</sup>

The European Skills Agenda has further set targets for 2025, which will be monitored annually. The following table provides a comparison of the targets and the current situation.

**Table 2**

**Comparison of the objectives of the European Skills Agenda 2025 and the state of play**

	Targets	Current EU level (latest year available)	Increase in %	Current SK level (latest year available)	Increase in %
Participation of adults aged 25-64 in learning in the last 12 months	50%	43.7% (2016)*	+ 32%	46.1% (2016)	9%
Participation of low-skilled adults aged 25-64 in learning in the last 12 months	30%	22.9% (2016)**	+ 67%	--- (2016)***	
Share of unemployed adults aged 25-64 with a recent learning experience (in %)	20%	12.7% (2021)	+ 82%	--- (2021)***	
Share of adults aged 16-74 having at least basic digital skills (in %)	70%	54% (2021)	+ 25%	55.2% (2021)	+27 %

Source: EC (2020a), s. 22, Eurostat (TRNG\_AES\_100, TRNG\_LFS\_102, TRNG\_LFS\_03, ISOC\_SK\_DSKL\_I21)

\* according to the Eurostat update, the original EC (2020a) figure is 38% (2016), the differences are due to a methodological adjustment to be applied from 2023. On-the-job training is excluded; \*\* according to the Eurostat update, the original EC (2020a) figure is 18% (2016); \*\*\* statistically low reliability of the data

An aggregated information in the form of a single value for an indicator often does not reveal significant problems in a given area. For example, in the case of adult participation rates in learning, a deeper data analysis shows that prevailing educational activities in Slovakia are frequent and short ones, which are unlikely to lead to the acquisition of new, more complex skills (Habodászová, Studená, 2021). It is also the fact that employers significantly dominate as providers of non-formal education in Slovakia. In the 2016 AES survey, the share of non-formal learning activities provided by employers was 34% in the EU27 and 49% in Slovakia<sup>13</sup>. In the case of digital skills, the latest data of 2021 show that while the overall share of the population with at least basic skills is slightly higher than the European average, the share of the population with skills above basic skills is already only 20% compared to the European average of 26.5%. The proportion of the population where the survey cannot assess the level of digital skills because the respondent has not used the internet in the last three months is 11% in Slovakia, which is in line with the European average.

The above mentioned objectives and the position of Slovakia clearly show the need to support upskilling and re-skilling in order to best match labour market needs. The first objective - 50% of adults in learning each year by 2025 - already suggests that the supply and availability of lifelong learning must also be significantly increased. This also justifies promotion of adult learning through the introduction of micro-credentials and individual learning accounts. It is therefore natural that initiatives to promote MCs and ILAs are already included in the twelve key actions announced in the European Skills Agenda<sup>14</sup> and also in the Action Plan for the implementation of the European Pillar of Social Rights<sup>15</sup>.

12 <https://rokovania.gov.sk/RVL/Material/26765/1>, p. 2

13 Eurostat, TRNG\_AES\_170.

14 <https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:52020DC0274&> .p. 18 and 19.

15 <https://eur-lex.europa.eu/resource.html?uri=cellar:b7c08d86-7cd5-11eb-9ac9-01aa75ed71a1.0022.02/DO->



Both initiatives have led to the simultaneous adoption of the EU Council Recommendations in support of both instruments in June 2022. Analytical studies are being prepared by the European Centre for the Development of Vocational Training (Cedefop) on both topics. The project on micro-credentials is at an advanced stage and the study to conclude the first phase has already been published<sup>16</sup>. The case studies of eight countries - Ireland, Finland, France, Germany, Ireland, Finland, Poland, Slovenia, Spain and France, will be of interest to researchers and policy makers. The project and the preparation of a study on individual learning accounts is at an early stage. The case studies of three countries with extensive experience (Austria, Ireland, Germany) and two with newly developed instruments (Estonia, the Netherlands) are under preparation. The most recent results of the project are the presentations of the November online conference by Cedefop<sup>17</sup>.

### 3. Micro-credentials (micro-certificates/micro-qualifications)<sup>18</sup>

#### 3.1 The concept of micro-credentials

The European perspective on this agenda can be best understood through the European Commission's dedicated website<sup>19</sup>. It contains both links to all relevant policy documents, but also a simple summary of the understanding and development of the MCs presented in a concise four-page booklet.<sup>20</sup> An in-depth elaboration and inspiration for EU Member States is expected from the Cedefop project mentioned above.<sup>21</sup> It is important to note that the "European" influence extends beyond the EU and dynamic developments can be expected globally.<sup>22</sup>

Definitions of MCs have evolved over time in the debate at European level and the current discussion has resulted in a draft definition of MCs, standard items of MCs' description and principles for their issuance.<sup>23</sup> The aim is to promote coherence in the creation and issuing of MCs across EU Member States and between education providers. Achieving coherence is important for the fulfilment of the stated vision of creating the European Education Area by 2025, and therefore The Member States' actions to promote MCs will be continuously monitored by the European Commission. The Member States will have to inform the EC of their measures by December 2023.

#### Box 1: The European definition of micro-credential

A micro-credential is a record of learning outcomes that a learner has acquired through a small amount of learning. These learning outcomes will be assessed on the basis of transparent and clearly defined criteria. The purpose of the learning experiences leading to the acquisition of the LOs is to provide the learner with specific knowledge, skills and competences that are relevant to social, personal or cultural needs or to the needs of the labour market. MCs are owned by the learner, can be accessed and are transferable. They can stand alone or be combined into higher level certificates. They are based on quality assurance in accordance with agreed quality standards in the relevant economic sector or field of activity.<sup>24</sup>

[C\\_1&format=PDF](#), p. 19.

16 <http://data.europa.eu/doi/10.2801/351271>

17 <https://www.cedefop.europa.eu/en/events/conference-microcredentials> .

18 Currently, translation of the term micro-credential is not settled, and, in this paper (in the Slovak version) we propose to use the term micro-certificate. In the case of regulation and inclusion in the register of the National Qualifications Framework (NQF), we propose to speak about micro-qualifications.

19 <https://education.ec.europa.eu/education-levels/higher-education/micro-credentials>

20 <https://education.ec.europa.eu/sites/default/files/2022-01/micro-credentials%20brochure%20updated.pdf>

21 A dedicated project page is available at <https://www.cedefop.europa.eu/en/projects/microcredentials-labour-market-education-and-training> .

22 For a brief overview of the developments in Australia, New Zealand, China and Samoa, see: <https://www.fenews.co.uk/exclusive/exclusive-micro-credentials-in-the-asia-pacific/> .

23 [https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:32022H0627\(02\)&from=EN](https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:32022H0627(02)&from=EN)

24 [https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:32022H0627\(02\)&from=EN](https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:32022H0627(02)&from=EN), C 243/14, article 5a.

The providers of MCs, as defined in this Council Recommendation, can be any education and training institutions, not just schools, but also e.g. employers, organisations representing workers and employers, public employment services or civil society organisations, and can be a result of learning, regardless of the environment and conditions in which it took place, i.e. formal and non-formal as well as informal learning. The details of any regulation of providers may be determined by national legislation. It is therefore also important to take note of the debate on MCs in Slovakia. The debate on the definition of this concept is not yet closed.

The definition first appeared in the Lifelong Learning and Guidance Strategy 2021-2030 (“LLL&G Strategy”) in the section 1.6 Increasing flexibility of the qualification system with smaller qualifications and micro-qualifications (micro-certificates)<sup>25</sup>. The Strategy comments that they express “the need to take into account even small changes in work ability, even the acquisition or development of only one specific skill, if this is a market-relevant need” and that foreign experience “shows that the evidence of qualifications as outcomes of even very short courses (e.g. lasting only 10 hours) is useful for both employees and employers”. The Strategy further reflects the concern of employers and education providers about the over-regulation of MCs and the fear of terminological conflicts that usually accompany adoption of foreign terms in Slovakia. Although it uses the term micro-certificate, which corresponds to the Slovak translations of the EC documents, it proposes to introduce two different and substantively distinct terms: ‘micro-qualification’ and ‘micro-certificate’. Thus, it proposes to translate the English term ‘micro-credential’ as ‘micro-certificate’ and to use the term ‘micro-qualification’ in the case of a micro-certificate, which is an evidence of the acquisition of a qualification included in the register of national qualifications in the sense of the SKKR regulation (by assigning a SKKR level). This leaves room for innovative unregulated learning activities and awarding of micro-certificates by learning providers, e.g. also in the form of digital badges (see section 3.4), which may gain the respect of learners or employers and thus weight in the labour market over time.

This also avoids problems with the acceptance of foreign or even a variety of domestic, progressively established micro-credentials for learners in any setting and with any level of education. Micro-certificates evidencing the achievement of learning outcomes recognised as qualifications with an aligned level of SKKR together with inclusion in the NQF is then a micro-certificate evidencing a micro-qualification, or to simplify (albeit inaccurately) is a ‘micro-qualification’. Preliminary discussions on the new draft act on lifelong learning (LLL), which is still at an early stage of preparation, suggest a different approach for the time being (Box 2).

#### **Box 2: A preliminary definition of micro-certificate in the draft act on lifelong learning**

The preliminary proposal states that, a “micro-certificate is a record of learning outcomes achieved through short learning programmes assessed against transparent and clearly defined standards”; more details on micro-certificates are included in the part Micro-certificates.

- A micro-certificate is a record of learning outcomes acquired within short learning programmes assessed against transparent and clearly defined standards and aligned to the level of the SKKR
- The Ministry maintains a register of educational institutions that provide training programmes leading to a micro-certificate.
- An educational institution may apply for entry in the register by submitting a training programme leading to a micro-certificate and an approval opinion from the relevant secondary or higher education institution.

This proposes to translate the term “micro-credential” as “micro-certificate”. This is a pragmatic solution which naturally allows the use of the abbreviation MC, which is also used abroad. On the other hand, it may be confusing that the term ‘micro-certificate’ is also used abroad. Some universities understand this as a certificate relating to the mastery of a selected course topics. It is therefore, in a way, a building block (smaller than a course) for “larger” certificates awarded for the completion of a training programme. Thus, if we fix the term micro-certificate as an equivalent to the term “micro-credential”, we run into the difficulty of translating the English term “micro-certificate”. The Slovak language does not

25 <https://www.minedu.sk/data/att/22182.pdf> , p. 35.

have an established equivalent for the term “credential(s)”, i.e. for the “credibility” instruments, whether of a citizen or of a worker. In the case of a worker, these are references from customers, colleagues and, of course, a variety of credible documents. It is trust and the possible need to “verify” a written document that subtly differentiates “credentials” and documents/certificates. In this study we use the term micro-certificate and the abbreviation MC.

Whichever term the legislator ultimately chooses; an even more fundamental problem relates to the different definition of the term compared to the European definition above. In Slovakia, MC would be linked to a ‘short training programmes’ and an educational institution wishing to provide a programme leading to MC would, in accordance with the preliminary draft act, have to obtain ‘an approval of the relevant secondary or higher education institution’. In this sense, the MC would be closely linked to school education and would be a document of qualification and, as it is foreseen to be aligned to the SKKR level, this qualification would be included in the SKKR register. This is clearly an extreme position. The proposed definition is significantly narrower than the European definition. In fact, the European definition of MCs refers to learning outcomes related to a small volume of learning<sup>26</sup>, which opens up the possibility of obtaining MCs not only on the basis of formal education and completion of a training programme. The Recommendation explicitly states that “micro-credentials could be created and issued by different providers in different learning environments (formal, non-formal and informal).”<sup>27</sup> It is therefore irrelevant whether the acquisition of the MC was preceded by formal education. It can be preceded by any kind of learning, all that matters is that the learner has acquired the required knowledge, skills and competences and that their acquisition has been assessed against transparent and clearly defined criteria and complies with quality assurance rules (see the definition in Box 1).

However, extreme is also the position of a part of employers, which was reflected in the inter-ministerial comment procedure on the LLL&G Strategy and according to which it should be “a matter of the needs of the labour market, employers and relevant trade unions and professional organisations, how they identify micro-qualifications or micro-certificates according to their requirements and needs. This is a segment of education which does not interfere with formal education but is an instrument of non-formal education or informal learning and is not covered by secondary vocational schools or universities”. This position of part of the employers’ representation is very problematic, since the use of MCs in higher education has not been questioned in the European context and the MICROBOL project, in which Slovakia also participated, is even aimed at finding European consistency in the use of MCs in higher education.

Thus, adopting the definition proposed in the draft act would disallow the use of the term micro-certificate in many cases where the term is already in use and in the environment where the term actually originated. It would lead to the overregulation that employers feared and which likely led to the problematic position quoted above. The Ministry’s proposed definition of ‘micro-certificates’ would unnecessarily subordinate the initiative of education providers and hinder innovative education anticipating future needs, whether of the learners or the labour market, by subordinating such education to the school environment. In addition to MCs that have compatible content with existing educational programmes, it is natural to consider MCs that are incompatible with current school programmes and are not natural building blocks of them, but may become building blocks of qualifications and programmes in the future. This is precisely the problem that the LLL&G Strategy addresses by the duality of terms. In this study, MCs are understood more broadly than the definition of micro-certificates in the draft LLL act. However, ‘regulated micro-certificates’ in the sense of being subordinated to the SKKR and included in the NQF register, and thus understood as micro-qualifications, are conceptually close to the definition of micro-certificates under the proposed act. This corrects the lack of definition in the draft LLL law. The new wording does not exclude certificates that are natural candidates to be understood as micro-certificates simply because they are issued and validated by institutions other than schools. After all, in some segments of the economy there are institutions that are respected certifying authorities (sometimes internationally respected) and are not schools. Some of these institutions’ certifications, usually related to professional development, further training, upskilling and reskilling, require only a ‘small amount of learning’. They would thus meet the definition of a ‘micro-credential’ in the sense of the ‘European definition’, but not in the sense of the proposed ‘Slovak definition’. This is not a sus-

26 [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022H0627\(02\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022H0627(02)&from=EN) .

27 [https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:32022H0627\(02\)&from=EN](https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:32022H0627(02)&from=EN) (Slovak version)

tainable position in the conditions of the European labour market and the European education area. Foreign MCs, which would not be MCs within the meaning of our law, would come to us anyway and increase the conceptual chaos.

This problem is addressed by the LLL&G Strategy. On one hand, it regulates the relationship with the formal education system, which the draft LLL act seeks to protect inadequately, on the other hand, it promotes innovation in education/learning and increased flexibility of the qualification system. However, it must be said that even the concept proposed by the Strategy is not fully compatible with the current European proposal for a definition of MCs, as it leaves the question of assessing learning outcomes “on the basis of transparent and clearly defined criteria” open. However, this offers a significant advantage compared to the current version of the European definition of MCs. Under this concept, any certificates or digital badges, formerly known as ‘micro-credentials’, are accepted under the name of micro-certificates (MCs), and it is up to the individual learner or employer to decide how they value such a product. In this sense, any in-company certificate understood within a corporation as a “micro-credential” is also accepted under the equivalent translation (MC), and it is up to the corporation how it approaches the definition and assessment of the learning outcomes associated with this MC. However, if an existing MC is attractive, or if the institution issuing the MC has an ambition to guarantee its value, this may be done by meeting the requirements for inclusion in the qualifications register. The aligning of the SKKR/EQF level presupposes the assessment of learning outcomes “on the basis of transparent and clearly defined criteria”<sup>28</sup>. Such MC then becomes an evidence of a qualification by law and, in other words, it documents a micro-qualification. The current European definition leads to unnecessary complications compared to this simple solution. Certificates that have been issued in the past as MCs may not be MCs under the current definition, as it is not clear whether they were issued following an assessment of learning outcomes ‘on the basis of transparent and clearly defined criteria’. Moreover, the definition is alibistic in relation to the important issue of “assessment” and setting of “criteria”. In fact, unlike other competing definitions that have emerged in the European discourse, it does not require an explicit input of a ‘third’ party that would be an independent arbiter of the fulfilment of ‘transparent and clearly defined criteria’. This increases the risk of conceptual confusion, as under the name ‘micro-credential’ it will be possible to encounter certificates that are so named but do not meet the definition, and thus certificates that are not actually clear whether they are MCs because this is not clearly demonstrated or it is not entirely clear how this can be demonstrated. Discussions by experts within Cedefop show that the approach to the definition of MCs proposed in Slovakia, based on the duality of terms, is favourable and is likely to be reflected in the final Cedefop recommendations.

The approach proposed by the LLL&G Strategy, based on the duality of the two terms (micro-certificate and micro-qualification), provides a simple pragmatic solution. It requires three points to be met:

- The use of the definition of MC proposed by this study (see Annex 1), which avoids the conceptual ambiguities commented above, and also the risk of over-regulation raised by the original “Slovak definition” and, in part, by the original European definition;
- Meeting the proposed ‘European’ requirements for the information contained in the document to support interoperability and understanding of the data contained in the MC documents (see Box 3).
- Compliance with the ‘European’ principles to enhance the credibility of MCs (see Box 4):

**Box 3: Proposal for a common ‘European’ data format for micro-credentials<sup>29</sup>, which should be set out in an appropriate general binding regulation**

Mandatory elements:

1. identification of the learner
2. name of the micro-credential
3. country(ies)/region(s) of the issuing entity
4. issuing entity(ies)
5. date of issue
6. learning outcomes
7. the expected workload on the learner - the effort required to achieve the learning outcomes (where possible in ECTS credits)
8. where applicable, the level (or cycle) of learning experience leading to the micro-credential (EQF, QF-EHEA)
9. type of assessment
10. form of participation in the learning activity
11. type of quality assurance underpinning the award of the micro-credential

Possible optional elements (non-exhaustive list):

1. prerequisites for enrolment in an educational activity
2. supervision and verification of identity during the assessment (without supervision and verification of identity, with supervision without verification of identity, with online or on-site supervision with verification of identity)
3. level of the qualifications framework achieved
4. integration/accumulation options (stand-alone, independent micro-credential /integrated, cumulative with another certificate)
1. other information

Leaving aside the obvious technicalities, there are items among the mandatory elements that may be problematic in the Slovak circumstances. First of all, it will be necessary to find a consensus on the form and granularity in which the learning outcomes are to be formulated and how the levels of the qualification framework are to be assigned to the MCs. This is also related to the problem that Slovakia has failed to address in subsequent steps following the adoption of the Referencing Report of the SKKR to the EQF<sup>30</sup>. We have not completed the setting of learning outcomes (knowledge, skills and competences in the sense of autonomy of action), the procedures for assessing the fulfilment of qualification standards and the assignment of the SKKR/EQF level to qualifications, and thus also to micro-qualifications documented by the MCs.

A more serious issue, which needs to be discussed beyond the scope of this study, relates to the point 11 (Box 3) and a long-standing weakness of both VET and higher education in Slovakia - the quality assurance practices of formal education. The quality assurance of qualifications awarded in non-formal and informal learning, of which the award of a micro-certificate as a micro-qualification is a partial problem, is also not solved in a way that would be fully compatible with European solutions. Slovakia has not responded consistently to the Council Recommendation of 20 December 2012<sup>31</sup>, although it has an analysis and recommendations by national experts<sup>32</sup> to support the recommendation on validation of non-formal and informal learning/learning<sup>33</sup>. Cedefop’s overview analyses show that Slovakia is among

29 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0770>, Annex I, p. C-243/24

30 <https://www.minedu.sk/data/att/15013.pdf>, annexes <https://www.minedu.sk/data/att/15014.pdf>

31 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C:2012:398:FULL>

32 Detko et al. (2016) Validation of non-formal education and informal learning in the Slovak Republic (Validácia výsledkov neformálneho vzdelávania a informálneho učenia sa v SR). [https://rozvojkariery.sk/wp-content/uploads/2018/06/analyza\\_validacia\\_vysledkov\\_neformalneho\\_vzdelavania\\_a\\_informalneho\\_ucenia.pdf](https://rozvojkariery.sk/wp-content/uploads/2018/06/analyza_validacia_vysledkov_neformalneho_vzdelavania_a_informalneho_ucenia.pdf)

33 Although the authors of this publication respect the confusing terminology introduced in 2007 in its title,

the lagging countries in this area<sup>34</sup>. The issue of quality assurance is even more acute in relation to the principles highlighting the key features of the European approach to micro-credentials that need to be fulfilled if MCs are to be accepted across the EU (see Box 4).

**Box 4: 10 “European” principles to promote trust in micro-credentials<sup>35</sup>**

(For the purposes of this study we present them in a simplified formulation)

1. Quality - Micro-credentials are subject to internal and external quality assurance through the system in which they are produced.
2. Transparency - Micro-credentials are measurable, comparable and comprehensible with clear information on learning outcomes, learner workload, content, level and supply of learning, where relevant.
3. Relevance - Micro-credentials should be developed and issued as stand-alone, targeted learning outcomes, with learning opportunities leading to their attainment updated as necessary to meet identified learning needs.
4. Valid assessment - Learning outcomes leading to micro-credentials are assessed against transparent criteria.
5. Learning pathways - Micro-credentials are developed and issued to support flexible learning pathways, including the possibility to validate, recognise and cumulate micro-credentials from different systems.
6. Recognition - Micro-credentials have a clear signalling value in terms of learning outcomes for smaller learning modules. Recognition creates conditions for such learning experiences to be offered more widely in a comparable way across the EU.
7. Portability - Micro-credentials are owned by the certificate holder (learner) and can be stored and easily accessed, including through secure digital wallets (e.g. Europass).
8. Learner-centred - Micro-credentials are designed to meet the needs of a target group of learners.
9. Authenticity - Micro-credentials contain sufficient information to check the identity of the certificate holder (learner), the legal status of the issuing entity as well as the date and place of issue of the micro-credential.
10. Information and guidance - Information and guidance on micro-credentials should be included in the framework of lifelong learning guidance services.

## 3.2 Micro-credentials in VET

### 3.2.1 The situation in Slovakia and European context

Vocational education and training (VET) in Slovakia has traditionally been understood as preparation for a profession even after it became a part of the school education system. Over time, with increasing diversification and growing specialisation of labour force needs, documents of the ministry of education started to talk about preparation for performing occupations, groups of occupations and professional activities. Even in the conditions of the managed economy before 1989, it was clear that it was not always appropriate to prepare young workforce only for a particular occupation and that skilled workers with a broader range of skills were also needed, who would later ‘deepen or broaden’ their qualifications to meet the needs of the workplace. The flagship of the pre-1989 VET – technical schools - were precisely focused on acquisition of vocational skills without the need to identify a particular occupation, in contrast to

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translating the word learning once as education and once as learning, they prefer the terms non-formal learning and informal learning in the text itself.

34 Cedefop portal „European inventory on validation non-formal and informal learning“ <https://www.cedefop.europa.eu/en/projects/validation-non-formal-and-informal-learning/european-inventory> .

35 [https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:32022H0627\(02\)&from=EN](https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:32022H0627(02)&from=EN). Annex II, p. C243/23-25

the apprenticeship courses of secondary vocational schools, where the clear focus on preparing pupils for an occupation persisted from the days of 'apprenticeship'. Older people may still remember recruitment leaflets that promised primary school leavers a lifetime in the profession and, possibly, the subsequent deepening and broadening of qualifications after apprenticeship. Nowadays, the view of qualifications and the definition of the term is changing radically. It is no longer about competence for an occupation, but about the fulfilment of learning outcomes set by standards - even in those VET programmes that were seen in the past as typical preparation for an occupation. Adapting to the 'European trend' entails two major changes:

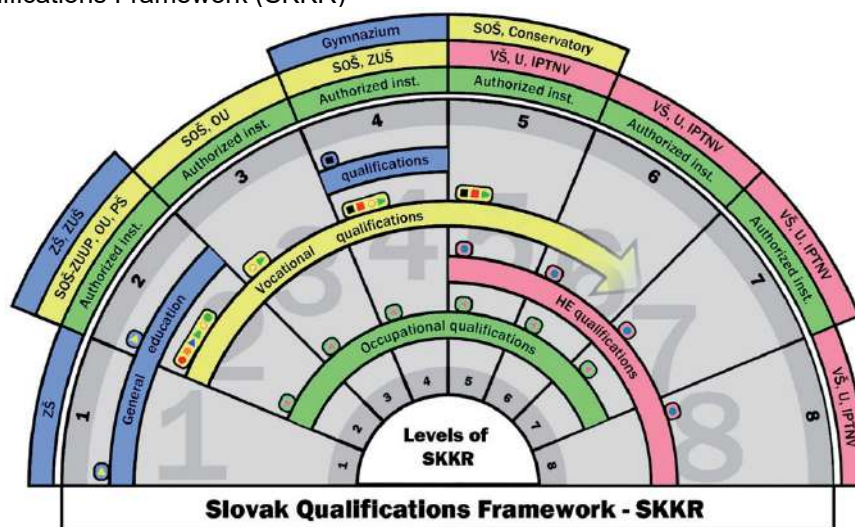
- a shift in emphasis to the setting of learning outcomes rather than inputs in the form of prescribed curricula,
- redefining the relationship between the education system and qualifications system.

The first change has been implemented since the beginning of the millennium. First, the shift towards 'learning outcomes' in VET was set by the methodology developed by the State Institute of Vocational Education (ŠIOV) and subsequently by the curricular reform initiated by Act No. 245/2008<sup>36</sup>, which led to the definition of educational standards in the form of content and assessment standards of the respective state (and subsequently school) curricula.

The second change started with two studies by ŠIOV, which led to a proposal to increase the flexibility of the qualifications system<sup>37</sup> and the proposal of the Slovak Qualifications Framework (SKKR)<sup>38</sup>, and must continue with its operationalisation.

The SKKR introduced a classification of qualifications into eight levels of difficulty analogous to the European Qualifications Framework (EQF), and four sub-frameworks.

**Figure 1**  
Slovak Qualifications Framework (SKKR)



The three sub-frameworks reflect the school education system and the 'big' qualifications acquired through several years of formal education. The fourth sub-framework contains the so-called occupational qualifications generated by labour market needs. These qualifications do not require a large amount of formal education and the learning outcomes related to these qualifications are closely linked to the competences immediately required for work. Thus, the fourth sub-framework qualifications are in principle also 'smaller' and can be created:

36 Act No.245/2008 Coll. on education and training (Education Act) and on amendment and supplementation of certain acts, <https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2008/245/20150901.html>

37 Vantuch, J. et al. (2013), <https://www.kvalifikacie.sk/sites/nsk/files/images/Dokumenty/analyzansk.pdf>

38 Vantuch, J. et al. (2014), [https://www.kvalifikacie.sk/sites/nsk/files/images/Dokumenty/analiza\\_ekr\\_nkr\\_eu.pdf](https://www.kvalifikacie.sk/sites/nsk/files/images/Dokumenty/analiza_ekr_nkr_eu.pdf)

- by segmenting formal qualifications and being their 'partial' qualification (e.g. butcher ↘ boner),
- by assigning a qualification framework level to an existing 'sectoral' qualification (e.g. forklift truck operator or plasma cutter),
- by creating new qualifications responding to labour market changes due to digitisation, robotisation and new technology-induced changes in the division of labour.

A special case of qualifications of the fourth sub-framework are also 'micro-certificates', which can be generated by any of the above three processes. In that case, to highlight the fact that comparatively little training or self-learning is required to acquire them, we propose to speak of 'micro-qualifications'.

Micro-credentials were originally created spontaneously without any claim to be "formally" recognised, either by the state or by important sectoral players. On one hand, there was a demand for short courses focused on specific skills, and the pandemic further demonstrated usefulness of small online courses. It would therefore be inappropriate to overregulate this agenda. Indeed, it could happen that various 'micro-credentials' acquired and recognised abroad would not be recognised as micro-certificates under our law, and it could also unnecessarily hinder the provision of innovative education. Therefore, the LLP&G Strategy<sup>39</sup> proposes to distinguish between two terms: 'micro-certificate', issued without strict regulation, and 'micro-qualification'. Micro-certificates that are 'successful', attractive to learners or employers and are suitable for some reason to be regulated, i.e. to be included in the SKKR and the Register of Qualifications, e.g. on the basis of a request from the institution that developed the course, will be seen as evidence of a micro-qualification.

One example of such innovations in education that should be encouraged is learning within Erasmus+ mobilities. In these mobilities, schools often use the opportunity of working with a foreign partner to expose the seconded pupils to equipment that is not available in the sending school or to a new working technique, such as the so-called basal stimulation technique (see Box 5).

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39 <https://www.minedu.sk/data/att/22182.pdf>, p. 35



### Box 5: Pedagogical and nursing concept “Basal stimulation”

This concept was developed in Germany, originally for working with children with severe combined disabilities and later adapted for use in nursing care. It has been used in clinical practice, hospitals, social service institutions and has therefore also been incorporated into the programmes of educational institutions. It is internationally supported by the International Basal Stimulation Association (IFBS, Internationaler Förderverein Basale Stimulation, (<https://basale-stimulation.de/>)). In the Czech Republic and subsequently also in Slovakia, the concept is supported by the Institute of Basal Stimulation (IBS, [www.bazalni-stimulace.cz](http://www.bazalni-stimulace.cz)) in cooperation with IFBS. By a decision of the Ministry of Health in 2009 and the latest decision of 4 March 2020 for a subsequent period of five years, the IBS Basal Stimulation training programme has been accredited as a continuing education programme in the listed health professions (including midwife, practical nurse, physiotherapist). The aim of Basal Stimulation is to enable new neuronal connections in brain through sensory stimulation in all sensory modalities, and therefore learning through verbal as well as non-verbal communication. Basal stimulation techniques compensate for some deficits in cognition and consciousness of the body and the surrounding world in children and adults with motor and communication difficulties (e.g. children with autism spectrum disorders or geriatric patients with dementia). In educational practice, basal stimulation can support children with special educational needs, which is gaining importance with the current approved recruitment of school nurses. Basal stimulation is not part of the curriculum of secondary nursing schools, but has become a content of international cooperation in mobility projects. In its Erasmus+ project (2021-2023) „New Trends in Patient Care“ (<https://szslm.edupage.org/a/erasmus-2022>), the Secondary Medical School in Liptovský Mikuláš justified the choice of a mobility partner by the possibility „to carry out a professional internship in wards that do not exist in Slovakia, where future practical nurses and masseurs „will learn to apply basal stimulation procedures in practice, learn new methods and procedures of work“. In the project, the school has identified the learning outcomes (knowledge, skills and competences at SKKR/EKR level 4) that the participants of the three-week mobility, i.e. a total of 105 hours of internship (15 days x 7 hours), will acquire. Three teachers in the field of practical nursing and three teachers in the field will also participate in a basic course on basal stimulation (24 hours) at IBS, thus obtaining an IFBS certificate. On the basis of the knowledge gained, they will develop new teaching materials for teaching the new thematic unit „Principles of Basal Stimulation“, which the school intends to use to innovate the content of the school curricula in the practical nurse and massage therapist fields of study.

This mobility is an example where we can talk about compliance with the definition of micro-credentials and, if requirements of the regulator (Ministry of Health) and the authorized institution (IBS and IFBS) are met, also about a micro-qualification helping to improve the school performance of children with special educational needs and facilitating living conditions of the patients.

Further impetus for the expansion of micro-certificates may come with gradual development of graduate tracking, as set out in the three-pillar graduate tracking system approved by the government in section 1.8 Establishing a comprehensive graduate tracking system of the LLL&G Strategy<sup>40</sup>. Information from school graduates may identify needs for strengthening the development of certain skills required for employment in the labour market that the existing curriculum did not develop or did not develop sufficiently, and thus induce the emergence of modules to compensate for the identified shortfall.

Last but not least, impulses coming from employers and employer surveys, which should be provided directly or indirectly by sectoral councils, could become a source for the expansion of micro-certificates.

As already mentioned, micro-credentials are a hot European topic and it is therefore natural that Cedefop, the EU's VET agency, is preparing a study on 'Micro-credentials for VET and labour market learning'. This study<sup>41</sup> has three objectives:

- mapping the prevalence and status of micro-credentials in VET and labour market learning in each EU Member State;
- examine the impact of micro-credentials on evolving qualification systems;
- explore the added value of micro-credentials for end-users.

At the start of its work, Cedefop collected basic information on the prevalence and status of micro-credentials in different EU countries and Norway through ReferNet reports, surveys and interviews with

40 <https://www.minedu.sk/data/att/22182.pdf>, p. 42

41 <https://www.cedefop.europa.eu/en/projects/microcredentials-labour-market-education-and-training>

representatives of the social partners (government, employers, employees) and training providers. Cedefop is also subsequently compiling detailed case studies of a selection of eight EU countries: Ireland, Finland, France, Germany, the Netherlands, Poland, Slovenia, Spain, which are intended both to help understand the diversity in the current approach to micro-credentials in VET, but also to identify the fundamental system-shaping elements and related recommendations for Member States. The results related to the first objective have already been published.<sup>42</sup> Preliminary results regarding the second objective were presented in November 2022<sup>43</sup> and results for the third objective are due to be published in April 2023. Preliminary results show a significant shift in looking at MCs. Cedefop explicitly declares a move towards a 'dual' view of MCs and also talks about the distinction between 'qualified' in the sense of having obtained a formal qualification and 'skilled' on the basis of demonstrating the ability to perform and work effectively.

Interim results also show that although this agenda is not yet strongly captured in strategic policy documents, there are already initiatives and projects promoting micro-credentials as well as data collection on them. Although most micro-credentials are not currently part of the formal education and qualification system, there are many sectoral and enterprise-level activities aimed at increasing employability and promoting adult learning through micro-credentials.

### 3.2.2 Micro-credentials in selected EU countries

According to Cedefop's preliminary findings, discussions on this topic are at an early stage in the most EU countries. By contrast, legislation or draft regulations have already been introduced in the Baltic States, Croatia, Ireland and Spain, while advanced policy progress is visible in the Netherlands, Poland and Slovakia.

Based on Cedefop's sources, which were gathered through the ReferNet questionnaire "Micro-credentials for labour market education and training - Deliverable 3b" and consultations with Cedefop experts Loukas Zahilas and Anastasia Pouliou, we offer a more detailed picture of the situation of micro-credentials in three selected countries - Ireland, Austria and Finland.

The Irish Qualifications Framework, which was developed in 2003, was an important source of inspiration for the Slovak Qualifications Framework (SKKR). Ireland is also a stimulating example of a country with a very well developed and supported further education system, regulated in parallel with higher education, and is an alternative model to systems with a strong initial VET stream, as is also the case in Slovakia. Ireland is a representative of the countries where qualification systems have already been segmented/modularised in the past and micro-credentials are therefore quite naturally related to the already existing 'smallest' segments.

Austria is an example of a country with a strong initial education stream, and the school system complemented by a traditional dual education stream. If Slovakia wants to further strengthen dual education (albeit based on a different concept than in Austria), it will have to monitor closely the activities of employers and their organisations. In Austria, as in Germany, the attitude towards micro-credentials in relation to formal initial VET is rather reserved. However, thanks to the strength of employers' organisations, which is incomparably higher in Austria, the dynamism of the supply and innovativeness of further training is high. Austria is therefore a representative of the countries where micro-credentials are naturally accepted in training organised by employers' organisations to upgrade or deepen qualifications.

Finland is permanently presented as a country with a quality education and qualification system. It is also the country where digitisation and the development of digital skills is put into practice much more successfully than in Slovakia. Micro-credentials have received increased exposure in the provision of short courses during the pandemic restrictions and in the context of the growing popularity of digital badges. In this selection, Finland is therefore a representative of the countries where the use of digital badges is strongly promoted.<sup>44</sup>

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42 <http://data.europa.eu/doi/10.2801/351271>

43 Presentations from the conference are available at: <https://www.cedefop.europa.eu/en/projects/microcredentials-labour-market-education-and-training>

44 See 3.4

### 3.2.2.1 Micro-credentials in Ireland

In all qualifications frameworks, including the SKKR, the need for revision, sometimes even for operationalization of the framework has become apparent over time. The quality of the Irish further and higher education system is the responsibility of Quality and Qualifications Ireland (QQI)<sup>45</sup>. In June 2020, QQI initiated a debate on the Irish qualifications system<sup>46</sup> based on the Green Paper on the Qualifications System<sup>47</sup>, and also launched the Irish Qualifications Register (IRQ)<sup>48</sup>. The IRQ contains all further and higher education qualifications recognised under the Qualifications Framework, as well as the courses offered. The IRQ is searchable by a number of parameters, but in particular by the level (1-10) of the Irish Qualifications Framework and the level (1-8) of the European Qualifications Framework, and by number of ECTS credits (0-360). At the time of writing this study, for example, there were 101 further education qualifications at EQF3 level and 10 ECTS credits in the register. Although the Irish legislation did not recognise the term micro-certificate/micro-qualification, as can be seen in the example above, the qualifications system was already working with ‘very small’ qualifications before the topic became a subject of widespread interest due to the restrictions triggered by Covid-19 and the changes in the labour market brought about by Brexit and increasing digitalisation. The need for and attractiveness of ‘short’ learning has become apparent and the Technical Report<sup>49</sup> to the aforementioned Green Paper also proposed a definition of a ‘micro-credential’: ‘A qualification that validates a low volume, highly specific educational achievement. This term often appears in connection with digital badges.’<sup>50</sup>

The Further Education Strategy 2020-2024<sup>51</sup>, developed by SOLAS<sup>52</sup>, the state agency supporting continuing education, states, among other things:

“The use of digital badges and micro-credentials/micro-qualifications will also be important as we move into an era of further education provision that adapts to the needs of learners and employers by being available in small chunks to facilitate accessibility.”<sup>53</sup> According to the ReferNet Ireland mapping report produced in 2021 for Cedefop, QQI accepts programmes of at least 5 ECTS credits in size for admission to the validation process as micro-credentials/micro-qualifications. Early programmes that sought recognition as providing micro-qualifications included data analysis, software development, project management, marketing, special education, regulation in the pharmaceutical industry and creative approaches to problem solving. It has to be said, however, that the most attention has been attracted by micro-credentials/micro-qualifications in higher education, where they have involved up to 30 ECTS of learning.<sup>54</sup>

### 3.2.2.2 Micro-credentials in Austria

Microcredentials are not a burning issue, but they do occur in practice. The Economic Development Institute of the Vienna Chamber of Commerce (Wirtschaftsförderungsinstitut der Wirtschaftskammer Wien, hereinafter WIFI) defines its role as follows: “WIFI is a service facility of the Vienna Chamber of Commerce. Our mission is to support those who work in business so that they can better meet today’s tasks and tomorrow’s challenges. Our goal is to improve technical and business skills and to provide assistance in solving company-specific issues. In doing so, we are guided by the current demands of the economy and the needs of our chamber members.”<sup>55</sup> It is also the largest training centre in Austria. It provides around 3,000 short- and long-term training courses. It is therefore not surprising that WIFI

45 [www.qqi.ie](http://www.qqi.ie)

46 Basic information is available at <https://www.qqi.ie/news/New-Green-Paper-on-Qualifications>

47 QQI (2020a), Green Paper on the Qualifications System (37 pages), available at <https://www.qqi.ie/sites/default/files/2021-10/green-paper-on-the-qualifications-system.pdf>.

48 The Irish Qualifications Framework is available at <https://irq.ie>.

49 <https://www.qqi.ie/sites/default/files/2021-10/technical-paper-on-the-qualifications-system.pdf>

50 QQI (2020b), p. 110.

51 [https://www.solas.ie/f/70398/x/64d0718c9e/solas\\_fet\\_strategy\\_web.pdf](https://www.solas.ie/f/70398/x/64d0718c9e/solas_fet_strategy_web.pdf)

52 [www.solas.ie](http://www.solas.ie)

53 Ibid, p. 56.

54 QQI (2021), QQI early exploration into Micro-credentials in Higher Education, 2014–2020, accessible at <https://www.qqi.ie/sites/default/files/2021-10/early-exploration-into-micro-credentials-in-higher-education-2014-20.pdf>

55 <https://www.wifiwien.at/artikel/106-das-wifi-wien>

also provides courses that can be regarded as examples that fulfil the idea of micro-certificates. They involve a small amount of training and are well targeted. Austrian experts cite the training courses of the so-called Academy of Artificial Intelligence (hereafter AUI) as an example of microcredentials.

AUI is aimed at professionals from any sector. No programming knowledge is required. It is intended to help those who are aware that artificial intelligence (AI) is becoming increasingly important and it is impossible to imagine the future of economic life without it, and therefore want to understand software systems or analytical systems that have been developed in their area of their expertise. Graduates should acquire “knowledge and skills to use the economic potential of using AI effectively for their own project or (planned) projects and to be competitive on the national and international level”.<sup>56</sup>

AUI consists of the Basic AI course (16 learning units (LU)), the follow-up course AI User (16 LU) and the specialisation continuation course AI Professional or AI Manager (16 LU). This is a total of 48 teaching units (face-to-face teaching hours) and 24 teaching units for project preparation.

For example, the basic course (module) consists of 16 teaching hours over two consecutive weekends (Friday 13.30 - 17.30, Saturday 9.00 - 13.00) and provides graduates with a basic orientation to AI issues presented as follows<sup>57</sup>: “This core module aims to develop general understanding of new technologies and their technical concepts. With an expert, you will gain insight into the many possible applications of AI and the benefits that can be derived from it. After completing the course, you will not only be familiar with the requirements for successful implementation of AI projects in your own company, but you will also have laid the ideal foundation to act as a liaison to work with AI specialists.” Some of the introductory learning questions say a lot about the course content:

“Why is AI really important today? What can AI already do today in different domains? What are the goals of AI development? When was AI invented and what were the milestones? What forms of AI exist? How will AI evolve?”, followed by practical questions at the end, “What does an AI project look like? What problems can usually be expected? What are the hardware and software requirements?”, which are complemented by practical examples.

The cost of the basic module is EUR 460, and the site informs about the possibility of using support tools, such as the Digital Skills Schecks<sup>58</sup>, through which the government supports the development of digital skills for SME workers. According to the call by the Ministry of Labour and Economic Affairs<sup>59</sup>, small and medium-sized enterprises (SMEs) were eligible for up to 80% of the cost of training their employees (up to a maximum of 10 people) in digital skills from 1 January to 30 November 2022, up to a maximum of EUR 5,000 per employee.

### 3.2.2.3 Micro-credentials in Finland

In October 2020, the Finnish Ministry of Education and Culture opened a national debate on micro-credentials in order to agree on the understanding of the concept and the terminology, as the original English term had no stable translation and most often the term “pienet osaamiskokonaisuudet (small competence units)” corresponded to this concept and term. This was understood as requirements for the acquisition of competences which are ‘smaller’ than the usual module of vocational qualifications and which are important for enhancing employability, as they aim to deepen and complement one’s professional skills. As in the private sphere, but also in higher education activities in Anglo-Saxon countries, micro-credentials are often linked to the award of digital badges. A successful example of working with digital badges is a project by the University of Applied Sciences in Oulu, which piloted a national digital badge for digital skills, which is being further developed and supported by the TIEKE Centre for the Development of the Information Society. TIEKE is an independent non-profit organisation that defines its main mission “to develop the digital competence of every individual and organisation so that they can take advantage of the unlimited opportunities that digitalisation brings”. TIEKE is also “a platform and forum that brings together stakeholders in the search for a well-functioning information society.”

The aim of the ESF project “Osuvat taidot (Competitive Skills)”<sup>60</sup> in 2019-2021 was to develop a national concept for a set of open badges that enables verification of adults’ problem-solving skills needed

56 <https://www.wifiwien.at/kurs/18221x-ki-akademie#inhalt>

57 <https://www.noef.wifi.at/kurs/35101x-ki-basiskurs>

58 <https://www.noef.wifi.at/artikel/1600-digital-skills-scheck-foerderung-fuer-kmu>

59 <https://www.ffg.at/ausschreibungen/DigitalSkillsSchecks-2-Ausschreibung>

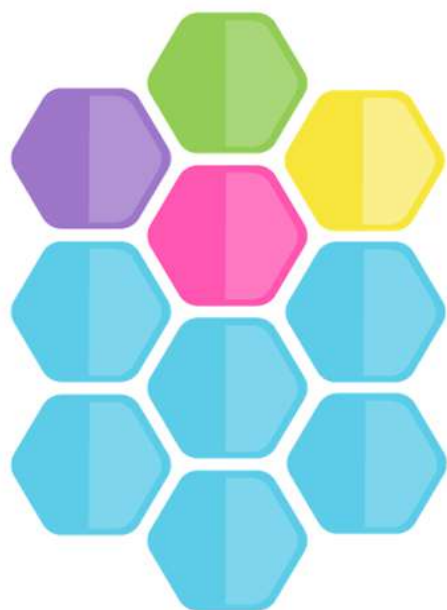
60 <https://tieke.fi/en/projects/competitive-skills/>

in technology-rich environments (as understood by the OECD PIAAC project). These skills include in particular the use and management of devices, copyright and data security, and digital services and contracts. The target groups were students, teaching and guidance staff, but also citizens aged 16-65 in vocational education and training and adult education.

The set of open badges has five levels of recognised digital skills, ranging from satisfactory to excellent. It contains ten badges and five cumulative 'milestone' badges.<sup>61</sup> A milestone badge is earned after all level-specific badges and lower level milestone badges have been earned.

## Figure 2

A set of open badges to validate adults' problem-solving skills in a technology-rich environment<sup>62</sup>



- **Convergent thinker** (K5/Excellent)
  - Problem solving and planning
- **Utiliser** (H4/Good)
  - Organising your work
- **Collaborator** (H3/Good)
  - Collaboration
- **Digital skills** (T2/Satisfactory)
  - Digital me
- **Basic skills** (T1/Satisfactory)
  - Choosing and using devices
  - Searching and evaluating information
  - Secure action
  - Responsible action
  - Communication and services
  - Using and managing applications

The concept of these open badges is based on a Creative Commons license and is freely available for non-commercial use. An educational organisation can become an issuer of digital skills badges if it cooperates with TIEKE, has an Open Badge Factory licence<sup>63</sup> and all trainers (including, for example, school teachers) who issue digital skills badges have been trained by TIEKE.

61 <https://tieke.fi/en/projects/competitive-skills/open-badges-for-digital-skills/>

62 <https://tieke.fi/en/projects/competitive-skills/open-badges-for-digital-skills/>

63 <https://openbadgefactory.com/en/>

### 3.3 Micro-credentials in higher education

Micro-credentials in higher education are a response to the changing world of higher education as a result of advancing technology, changes in workforce demand, and new dynamics and flexibility in the delivery of learning opportunities through short online courses. Three projects<sup>64</sup> - MicroHE, MicroCredX and MICROBOL - have been launched with the support of the Erasmus+ programme to explore the potential of micro-credentials and to support their implementation in higher education.

The MicroHE project was launched in 2018 to analyse the impact of modularisation, 'unbundling' and awarding of micro-credentials on the European Higher Education Area. The final online conference of the project<sup>65</sup> was hosted by the Timișoara Polytechnic University on 14 September 2020. The results of the project<sup>66</sup>, discussed in three workshops, were based on a survey of the views of the executives of more than 70 higher education institutions. An interesting feature is the promotion of the cloud service Credentify<sup>67</sup>, which is Europe's first free and open service based on blockchain technology and which allows universities and students to issue and accept micro-credentials. Work on the Erasmus+ MicroCredX (Micro-credentials exchange)<sup>68</sup> project is still at an early stage, having started in 2022. The MICROBOL (Micro-credentials linked to the Bologna key commitments) project<sup>69</sup>, to be implemented in 2020-2022 and co-funded by Erasmus+ under the KA3 key action Support to policy reform, is the most relevant in terms of impact on the policy sphere. Its aim was to explore the consistency of the Bologna Process with initiatives leading to micro-credentials and to propose a common European framework for the implementation of micro-credentials in the European Higher Education Area (EHEA). The MICROBOL project partners and experts published a common framework for micro-credentials in the EHEA in the framework of a final conference on 8 March 2022<sup>70</sup>. Quality assurance of micro-credentials was addressed by the European Association of Quality Assurance Agencies in Higher Education (ENQA), which set up a working group on the topic and presented its outputs on 27 September 2022.

There was a consensus that a micro-credential certifies a small amount of learning that aims to provide a student with specific knowledge, skills and competences that respond to social, personal, cultural or labour market needs. Such 'small-scale learning' is not a new phenomenon; it has been part of lifelong learning for a long time, but has recently grown in importance. The benefit of micro-credentials is that they allow for an increase and diversification of lifelong learning provision to support individual learning pathways and widen access to higher education. The notion of 'stackability' or 'cumulability' as the possibility to combine and build on different micro-credentials in formal higher education, where relevant, is the most important concept and principle.

Experts also agreed on the need to continue the work of the thematic working groups and to reflect this in their work programmes for the period up to 2024, as a number of issues remain unresolved, e.g:

- the extent to which offering small units of learning and flexible pathways is desirable in higher education, and whether there is a risk of fragmentation and reduction in the quality of higher education compared to full programmes;
- how the existing quality assurance systems for higher education can be used to monitor the quality of education provided by alternative providers. However, there is a general agreement that the existing quality assurance tools and processes should be used for these purposes;
- how to facilitate the recognition of micro-certificates acquired outside Europe using the EHEA tools, in particular by using the European Qualifications Framework and national qualifications frameworks;
- how to set guidelines for the inclusion of micro-credentials in qualification frameworks;
- how to make use of already existing private platforms for micro-credentials.

A brief one-page summary of the common framework for micro-credentials in the EHEA provides a

64 <https://microcredentials.eu/>

65 <https://microhe.miccrocredentials.eu/microhe-final-conference-2/>

66 <https://microhe.miccrocredentials.eu/home/microhe-outputs/>

67 <https://credentify.eu/about>

68 <https://microcredx.microcredentials.eu/about/>

69 <https://microbol.microcredentials.eu/>

70 [https://microbol.knowledgeinnovation.eu/wp-content/uploads/sites/20/2022/03/Micro-credentials\\_Framework\\_final-1.pdf](https://microbol.knowledgeinnovation.eu/wp-content/uploads/sites/20/2022/03/Micro-credentials_Framework_final-1.pdf)

quick insight into the issues<sup>71</sup> and also a task for national authorities. In our context, all three highlighted systemic elements of a successful implementation (quality assurance, recognition/verification and inclusion in the national qualifications framework) require an expert discussion and regulatory initiative. When the national qualifications framework was introduced, the national authorities, referring to the forthcoming higher education reform, announced that “a self-certification report in relation to the qualifications framework for the European Higher Education Area will be presented separately once the reform has been fully adopted”<sup>72</sup>. This has not happened yet and Slovakia is one of the few EU countries that have to finalise the relationship with the Qualifications Framework for the European Higher Education Area (QF-EHEA)<sup>73</sup> and to prepare a “self-certification report”<sup>74</sup>. Slovakia has also not yet completed the set-up of procedures for the inclusion of qualifications acquired outside the school system in the national framework of qualifications, and therefore the most pressing task may be the development of guidelines for the inclusion of micro-certificates in SKKR.

Similar to VET micro-credentials, the approach of EU Member States to micro-credentials in higher education is diverse. Further education and ‘short course’ offerings have traditionally been strongly developed in some countries and therefore regulators have responded more quickly to micro-credentialing initiatives in these countries. As noted above, an example of such a country is Ireland and the regulator QQI, where micro-credentials, also under the impact of Brexit and the pandemic, have become a hot topic in higher education.<sup>75</sup> In some other countries, including Slovakia, the attitude towards micro-credentials in higher education, currently overwhelmed by other concerns, is rather cautious. The following examples of what is happening in two countries, Finland and the Netherlands, may be a source of inspiration for us.

### 3.3.1 Micro-credentials in higher education in Finland

The definition of this concept is not yet settled. It is being prepared by the Finnish Ministry of Education and will be based on the definition proposed by the European Commission. Since, unlike in Ireland<sup>76</sup>, Finland also lacks guidelines for micro-credentials at national level, development of micro-credentials is a spontaneous, living process. Several projects are currently underway in Finland. We have already mentioned the project of the University of Applied Sciences in Oulu above<sup>77</sup>.

Micro-credentials provided by the University of Jyväskylä<sup>78</sup> are in line with the definition of the European Commission, i.e. the university has not created its own definition. Micro-credentials are not assigned a precise ECTS credit value because of the lack of a unifying approach by the state. The current situation is therefore assessed by the institution as rather transitional, for example, the procedure for inclusion of micro-credentials in higher education curricula has not been resolved. The University of Jyväskylä does not currently provide micro-credentials in cooperation with non-university providers. Discussions are currently taking place at the university level on how to integrate micro-credentials into the quality assurance system.

In contrast, Kaakkois-Suomen ammattikorkeakoulu University (XAMK)<sup>79</sup> uses its own definition and started implementing micro-certificates three years ago. It also assists other universities in implementing micro-credentials. They have defined micro-credentials as short courses requiring roughly 10 hours of work focused on a specific topic that allows for self-study. Certification is documented in hybrid or digital form. Although the university does not offer credit-weighted micro-credentials, the institution

71 [https://microbol.knowledgeinnovation.eu/wp-content/uploads/sites/20/2022/03/MICROBOL-framework-one-pager\\_final.pdf](https://microbol.knowledgeinnovation.eu/wp-content/uploads/sites/20/2022/03/MICROBOL-framework-one-pager_final.pdf)

72 <https://www.minedu.sk/data/att/15013.pdf>, p. 5

73 <http://www.ehea.info/page-qualification-frameworks>

74 The relevant self-certification reports of each EU Member State are available on the ENIC/NARIC portal <https://www.enic-naric.net/page-countries-of-the-networks> under Qualification framework and further under Self-certification.

75 <https://www.qqi.ie/sites/default/files/2021-10/early-exploration-into-micro-credentials-in-higher-education-2014-20.pdf>.

76 See 3.3.1.

77 See 3.2.2.3.

78 <https://www.jyu.fi/en>

79 <https://www.xamk.fi/en/frontpage/>

plans to award them in the future for completion of these courses. Unlike the University of Jyväskylä, XAMK also provides micro-credentials in cooperation with a wide range of non-university entities. In these collaborations, XAMK acts as a mediator between the different entities and provides its infrastructure, but does not set the content. Although there is not yet a mechanism in place for integrating the outputs of the micro-credentials into the learning leading to higher education at XAMK, micro-credentials are included in the quality assurance processes

### 3.3.2 Micro-credentials in higher education in the Netherlands

In the Netherlands, a national pilot project for the implementation of micro-credentials was launched in 2022, involving 32 higher education institutions. Within the project, micro-credentials are defined as certificates earned for the completion of between 3 and 30 credits (with one credit being worth 28 hours of work). The training provided by a higher education institution and leading to a micro-credential is a part of accreditation based on the ESG<sup>80</sup>. standards. The outputs of the project will be establishment of quality assurance mechanisms for micro-credentials, support new micro-certificates and sharing of knowledge and experience. As micro-credentials are currently not included in the current legislation, the pilot project is intended to show how some processes (e.g. minimum and maximum scope of a micro-credential) need to be set up. In the national register for micro-credentials, the level of inclusion in the national qualification framework will also be a compulsory item of the certificate.

Some courses already allow acquisition of a digital certificate, an edubadge<sup>81</sup>. The edubadge is a digital ‘badge’ (see also section 3.4) which shows that the holder has acquired certain knowledge and skills. The edubadge can be issued for both accredited learning and non-academic learning. Some have also been assigned a European Qualifications Framework level (EQF 2-7), but most have not yet. Some of more than a thousand digital badges currently awarded are directly labelled as “MC – micro-credential”<sup>82</sup>. A specialised platform<sup>83</sup> managed by SURF allows to obtain a digital badge electronically.<sup>84</sup> SURF<sup>85</sup> has more than 100 members, including all Dutch universities and research centres, as well as many universities of applied sciences and vocational training colleges, with a much broader focus. All educational institutions face the challenge of providing a safe digital environment for all their students and staff. In doing so, they are faced with a dilemma: an increasing risk of making a wrong decision under the pressure of a growing and not always transparent range of commercial solutions on one hand, or proposals for outsourcing and the loss of autonomy in deciding on the provision of ICT services on the other. SURF aims to provide for the material needs of its members through “in-sourcing”, not “out-sourcing”. Through SURF, its members enter into joint agreements for the purchase of ICT products and services, while each member receives support in assessing privacy risks of working with data and in managing GDPR obligations. According to the statutes, SURF must have a strategy for services and innovation with impact on research and education, and roadmaps specifying implementation of the strategy’s tasks. The strategy is developed for a period of six years, with a detailed evaluation after three years. Both the strategy and the roadmaps shall be approved by the Council of Members. Within SURF, its members work in six chambers reflecting their priority focus<sup>86</sup>: universities, universities of applied sciences, vocational education and training colleges, university health centres, research and other centres.

#### 1.4 Digital learning badges and digital certificates

Digital badges and digital certificates are a natural outcome of the advancement of digital technologies. They are also a consequence of the increasing importance of non-formal and informal learning. Initiatives to support the creation of digital badges have been directly motivated by the desire to promote non-formal and informal learning as a tool for developing competences relevant not only for the learn-

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80 The Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG 2015) are available in the Slovak version at <https://www.minedu.sk/system-zabezpecovania-kvality/> .

81 [www.edubadges.nl](http://www.edubadges.nl)

82 <https://edubadges.nl/catalog>

83 <https://www.surf.nl/en/about-edubadges>

84 <https://www.surf.nl/en>

85 <https://www.surf.nl/en>

86 <https://www.surf.nl/en/about-surf/surf-members>



ers themselves but also for another purpose, which also raises the need for recognition of its results. With increasing digitisation, attractiveness of digital badges for young people and practicality of digital certificates, these digital products have also become of interest to formal education providers. The increasing modularisation of formal education programmes has also contributed to this trend.

### 3.4.1 Digital learning badges

With the growing popularity of micro-certificates and digital badges, efforts to standardise their creation and provide electronic support for their issuance have naturally emerged.

In 2011, the Mozilla Foundation announced a plan to develop an open technical standard called “Open Badges”<sup>87</sup> to create and build a common system for issuing, collecting and displaying digital badges. In collaboration with the MacArthur Foundation and a number of organizations involved in promoting lifelong learning, the initiative has gradually evolved into a multinational association that has expanded beyond the US. Currently, the governance of the Open Badges standard and support for the ecosystem is provided by the IMS Global Learning Consortium and specifically by the non-profit organisation 1EdTech Consortium (1EdTech).<sup>88</sup>

In Europe, support for open badges has been significantly expanded through the Erasmus+ programme. The Discussion Paper on Open Badges<sup>89</sup> published in 2016 presented open badges to policy makers in EU countries as follows:

“An open badge is a visual representation of achievement, interest or affiliation that is available online and contains metadata that helps explain the context, meaning, process and outcome of the activity required to earn it, and a new way to validate and recognise learning outcomes, skills or other achievements. They represent a new standard for validating and verifying learning and achievement”.

Open badges are a form of digital micro-certificates that also carry credible and verifiable information about achievements or accomplishments, combined with a technical aspect that allows them to be easily visualized, portable, collected and used in the digital space - through websites, social networks, digital portfolios, etc.

Open badges are issued by education or consultancy providers, project implementers, organisers of educational events, etc. after a specified achievement - simple badges can be a confirmation of participation, but also of the acquisition of specific skills or a degree at the university.

“Badges are usually used for expression and presentation:

- achievements (demonstration of results),
- competences (demonstration of knowledge, skills, competence),
- potential (indicators of future performance),
- participation (evidence of attendance, e.g. at events, conferences),
- membership (represents membership, e.g. of a club),
- commitment (attitudes, values, beliefs),
- encouragement (good work, grades).”<sup>90</sup>

Displaying badges on the holders’ personal website, e-portfolio or social website is a way to establish and share part of one’s identity and reputation - especially what one knows and can do.

In education, badge systems are emerging with the purpose to:

- Motivate learners to adopt a positive approach to learning,
- Identify educational progress and content trajectories,
- To mark and validate engagement, learning and achievement.

Terminologically, open badges are often used as an equivalent with digital badges or certificates. The essence of the open badge and its added value over a digital, electronic document lies in the data that the open badge contains, thus “enabling new forms of validation.”

Compared to other traditional credentials such as certificates, diplomas or degrees, open badges are

87 <https://openbadges.org/>

88 <https://www.imslobal.org/activity/openbadges>

89 [http://www.openbadgenetwork.com/wp-content/uploads/2017/09/O5-A1\\_Policy\\_Discussion\\_Paper.pdf](http://www.openbadgenetwork.com/wp-content/uploads/2017/09/O5-A1_Policy_Discussion_Paper.pdf)

90 Ibid

characterised by new features. The format of open digital badges is characterised by high flexibility, good usability in different educational, work and social contexts, in both virtual and physical environments. Equally flexible is the purpose of their use, serving to reward, motivate, recognise and verify learning outcomes, encourage or confirm progress or advancement. Describing the content of the digital badge in the form of metadata allows for the provision and easy demonstration of their credibility through included evidence and references, as well as information on the assessment of an individual's achievement. In turn, their attractiveness is ensured by the possibility of easy sharing on the Internet, social networks and profiles, in digital portfolios or CVs. In addition, the format of digital badges is easily transferable between different platforms, allowing them to be stored while preserving both the visuals and the content stored in the metadata. Badges can be issued independently or build on each other to compose an individual's learning trajectory, whether issued by one or multiple organisations.

**Figure 3**



Examples of open badges

*Bagdr University Open Badge: Technology: Achieve- ment in 21st Century Skills*      *British City & Guilds Open Badge*

Badges have two main components – an image and metadata information. The image is a visual representation of the achievement chosen by its issuer often in colour or otherwise graphically differentiated to distinguish levels of difficulty or other progression. It is the most visible part of the badge, so it usually contains information about its issuer or content. Images are simple or more complex graphic elements that can be designed by issuers according to their needs or requirements, e.g. in line with the visual identity of their institution. Designs for such images are available in graphic (both paid and free) online services such as Canva, Freepik, Shutterstock<sup>91</sup>, but also directly on publishers' open badge platforms.

The general technical specification of the image includes:

- PNG or SVG format,
- square shape with the same height and width,
- maximum image size 256 kB,
- image dimensions of at least 90 x 90 pixels,
- the recommended image size varies by badge issuing platform, for PNG files the recommended size is usually 400 x 400 - 600 x 600 pixels.<sup>92</sup>

A new feature of open badges is the use of a QR code, which contains a link to a public profile, page or badge.

A more important component of an open badge than the image itself is the metadata, i.e. the content of the badge itself, which makes it both understandable and verifiable by others (even computers). The data contained in the metadata of an open badge include:

91 <https://www.canva.com/logos/templates/badges/>, <https://www.freepik.com/free-photos-vectors/badge-design>, <https://www.shutterstock.com/search/badge>,

92 [https://badge.wiki/wiki/A\\_Guide\\_to\\_Writing\\_Open\\_Badge\\_Metadata#Image](https://badge.wiki/wiki/A_Guide_to_Writing_Open_Badge_Metadata#Image)

- a formal description of the badge, which contains the mandatory information for the badge, e.g. name, badge image, issuing institution, description of the badge, criteria for obtaining the badge and criteria for its validity,
- the certificate is itself a confirmation of the individual's achievement and therefore contains individualised information about the identity of the badge holder, a description of the content, the date of validity, but also other evidence and details confirming and proving its content, e.g. links to documents, videos, images, etc. The description of the badge informs about the specific education or learning and the outcome that the badge represents, for example:
  - the context of the badge - where and how the learning experience took place, when the badge was earned,
  - what knowledge, skills and/or attitudes/behavioural change has occurred as a result of the learning, what tasks or activities has the badge holder completed/demonstrated?
  - evaluation procedures, evaluators, etc.
- a profile giving information about the person or organisation issuing the open badges, or the recipients or approvers.

Thus, by the extent of the data contained in the badge metadata, open badges provide much more valuable information than traditional paper or electronic certificates.

Open Badge providers often issue their badges through platforms based on the Open Badge technical solution mentioned above (see e.g. the University of Oulu project), as they allow badges to be issued, retrieved and displayed over the Internet. Individuals can collect the badges they have earned in a repository, transfer them to other platforms, share them on their CVs, social media profiles, websites, etc.

#### **Box 6: Main components of open badges**

- Image: graphic identity of the badge specific to the issuer, or QR code;
- Metadata (content):
  - information about the issuer (name, description, contact, website, etc.)
  - information about the open badge, the criteria for achieving it, or a link to other badges in the category,
  - a record of the individual's achievement of the badge (e.g. learning outcomes achieved).

Examination of open badges and their use in the European context has been the subject of several European projects (e.g. Erasmus+). Projects have addressed, for example, the introduction of badges for key competences, soft skills or the use of badges in enhancing the quality of European mobility. Several projects have included elements of linking open badges and the European CV and later Europass portfolio - e.g. the Openbadges.eu project<sup>93</sup> or SoftSkills4EU<sup>94</sup>, which have also developed tutorials on the use of badges and their inclusion in the Europass CVs and portfolios.

In 2018-2020, the Erasmus+ Virtual Exchanges project was run through the European Youth Portal, targeting young people and youth workers to develop and raise intercultural awareness and build skills in intercultural dialogue and active citizenship through virtual exchanges. After completing the activities and meeting the criteria, participants could earn one of four open virtual exchange badges, which reflected the appropriate level of competences (a combination of skills, attitudes and knowledge) based on the Virtual Exchange Competence Framework<sup>95</sup>.

93 <https://www.open-badges.eu/>

94 <https://softskills4.eu/>

95 [https://youth.europa.eu/erasmusvirtual\\_en](https://youth.europa.eu/erasmusvirtual_en)

**Figure 4**

Examples of badges based on the competence framework for virtual exchanges



The **DigitalCulture**<sup>96</sup> project developed digital skills among adult learners in the creative industries in Romania, Italy, Austria, Denmark, Lithuania, the UK and Ireland. The project developed training courses (MOOCs) based on the European Digital Competence Framework - DigComp 2.1, an e-assessment tool for digital skills and open badges for digital skills, e.g.:

**Figure 5**

Examples of digital skills badges



Digital content and publishing

Digital safety, security and ethics

Data protection and open licences

Open badges can also be used as quality marks. The Greek Ministry of Education makes digital educational content available through the Photodentro Open Educational Resources (OER) repository<sup>97</sup>, using badges as quality marks for the educational resources offered. Educational content from the Photodentro Open Educational Practice Repository is awarded quality badges based on the following criteria:

- pedagogical innovation and creativity,
- integration of good practice into the learning process;
- integration of digital learning content into the curriculum;
- integration of digital learning content into an interdisciplinary framework;
- integration of digital learning content into other innovative projects or activities (e.g. environmental education, health education, participation in national or European competitions);
- benefits of using good practice in education;
- positive impact on teachers' attitudes.

96 <https://digiculture.eu/>

97 <http://photodentro.edu.gr/seals/>

## Teachers' professional development driven by open badges

The Finnish Ministry of Education has supported a nationwide experiment using open badges for professional development of educators based on flexible learning opportunities and acquisition of new and currently needed competences for working in digital environments (based on the European DigComp framework). The project aimed to develop and implement a national system of digital badges to support the recognition and validation of the professional competences of teachers of vocational subjects (HAMK, 2018) - both in the initial preparation for the profession and in the professional development of teachers. The overall set of badges consists of the following components: learning and mentoring, networking, work communities, development, personalised learning and assessment.

For example, in the pilot module Research, Development and Innovation (6 ECTS credits), students were required to earn at least three badges in the domains - Information Retrieval, Scientific Writing and Project Work in Research, Development and Innovation, which led to the award of the meta-badge Research, Development and Innovation Competences for Teachers of Vocational Subjects.<sup>98</sup> In the evaluation of the pilot, students appreciated the open badges for containing richer information about the achievement than the certification itself.

The success of this approach is based on a broader (national) vision for the development of educators' competences, easily accessible learning content linked to the individual badges, a clear structure of learning pathways for achieving competences (a constellation of open badges), an accessible system of learner support, and recognition of the certificates thus acquired.

### Box 7: Characteristics of open badges

- Learning journey: open badges are a form of micro-credentials - they serve to confirm and demonstrate acquired competences and visualise an individual's learning pathway;
- Demonstrability: metadata includes a record of achievement;
- Granularity: they can exist in groups (or categories) and can be stacked/cumulated;
- Flexibility: they can be applied in different learning environments;
- Verifiability: they contain elements confirming their authenticity and validity;
- Portability and sharing: digital format allows easy manipulation in the online space;
- Automated issuance: they are issued via online platforms.

### 3.4.2 European Digital Credentials for Learning

The European Digital Credentials for Learning are the European Commission's response to the growing trend of issuing so-called "alternative certificates" - such as micro-certificates, digital badges and sector-recognised certificates<sup>99</sup>.

The standard of the EU digital credentials is in particular presented by the new Europass platform (from 2020), which includes a module with the functionality to issue, receive and manage digital certificates. Since the pilot in 2018, the original European Digitally Signed Credentials have evolved into the current European Learning Model<sup>100</sup>, which should be fully operational by early 2023, and which is another tool to increase the transparency and clarity of skills and qualifications in Europe with the aim of "facilitating recognition, streamlining recruitment and admission processes (of learners) and contributing to reducing fraud"<sup>101</sup>.

The introduction and use of digital credentials has been foreseen in the EU legislation and policy documents since around 2017. The Annex VI of the revised Recommendation on the European Qualifications Framework<sup>102</sup> which specifies the elements of data fields for the electronic publication of qualifications, has become a common starting point for the forthcoming European Learning Model. It aims to "capture the results of all formal and non-formal learning across Europe, as well as the validation of non-formal and informal learning"<sup>103</sup>. The model will provide a common format for learning-related in-

98 <https://www.hamk.fi/projektit/open-merkit/#osaamismerkisto>

99 <https://www.oecd.org/publications/the-emergence-of-alternative-credentials-b741f39e-en.htm>

100 <https://europa.eu/europass/en/news/upcoming-launch-european-learning-model-v3>

101 <https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:52020DC0625&from=EN>

102 [https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:32017H0615\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:32017H0615(01)&from=EN)

103 <https://github.com/european-commission-empl/European-Learning-Model>

formation, such as certificates of attendance at an educational institution, training event or programme, qualifications obtained or other professional certificates.

The Digital Learning Action Plan (2018)<sup>104</sup> defines its objective as “a framework for issuing digitally certified qualifications and verifying digitally acquired skills that are credible, multilingual and can be stored in professional profiles (CVs) such as Europass. This framework will be fully aligned with the European Qualifications Framework for Lifelong Learning (EQF) and the European Classification of Skills, Competences, Qualifications and Occupations (ESCO).” The new 2018 Europass Regulation introduced support for “authentication services for all electronic documents or submissions of information on skills and qualifications”<sup>105</sup>.

To support the improvement of data quality and connectivity, other reference frameworks and tools (e.g. GreenComp<sup>106</sup>, LifeComp<sup>107</sup>, EntreComp<sup>108</sup>, FinComp<sup>109</sup>) have been developed in recent years to facilitate the exchange of information and data on learning and job mobility for different actors in the education and labour market as well as for individuals.

Digital credentials can be used in formal, non-formal and informal learning environments and for a variety of purposes. Descriptions of the learning outcomes achieved, as well as how they are assessed (where relevant), constitute important information for employers, educational institutions (including higher education institutions) and learners. They also facilitate the assessment and comparison of those learning outcomes - the level of knowledge, skills and competences (or responsibility and autonomy) with the National Qualifications Framework. They have an advantage of the amount of information contained and the reliability ensured by automated checks confirming the authenticity and validity of the information, e.g. on the basis of official databases of national authorities and electronic seals, which prevent their falsification or other manipulation. Documents can be easily read in a multilingual tool.

The functionality of the European Digital Credentials is accessible to the general public through the Europass platform, which allows easy navigation for the roles of a credential issuer, user (browser) and holder (digital wallet).

**Box 8: Mandatory Europass digital certificate data:**

- issuing entity,
- holder,
- type of certificate,
- name of certificate (or output to be validated),
- date of validity,
- electronic seal.

The figure below shows these elements in a formal education document, which confirms both the richness of the data and the security features that prevent it from being forged, attesting its authenticity with an electronic seal and verifying it with a national database of issuers of such certificates managed by each EU country.

104 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0022&from=EN>

105 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018D0646>

106 <https://green-comp.eu/>

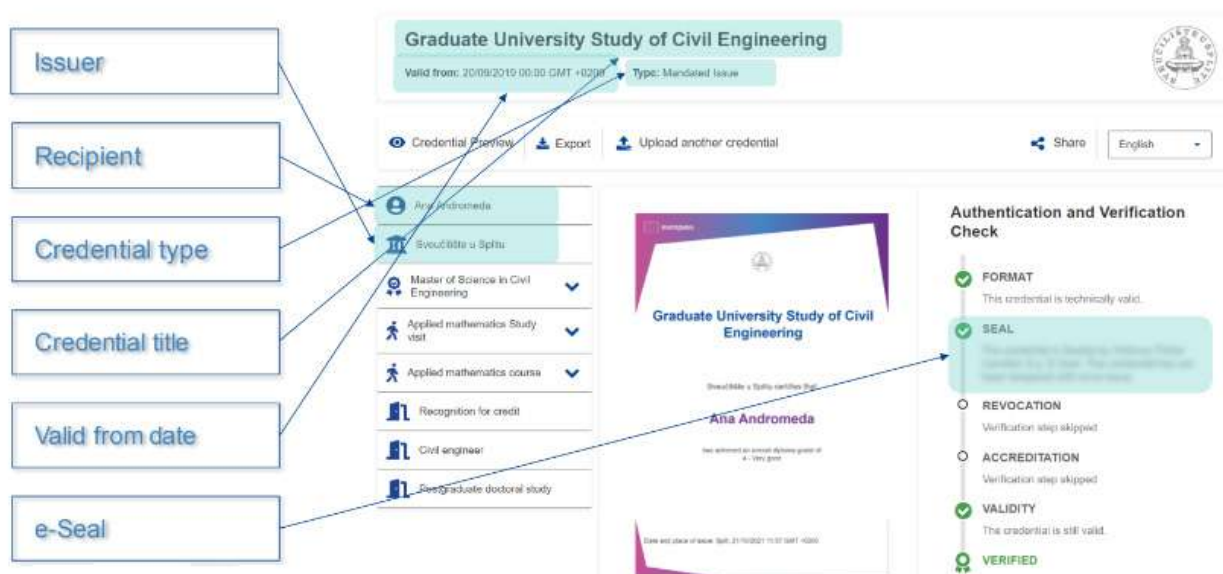
107 [https://joint-research-centre.ec.europa.eu/lifecomp\\_en](https://joint-research-centre.ec.europa.eu/lifecomp_en)

108 <https://entrecomp.com/>

109 [https://finance.ec.europa.eu/system/files/2022-01/220111-financial-competence-framework-adults\\_en.pdf](https://finance.ec.europa.eu/system/files/2022-01/220111-financial-competence-framework-adults_en.pdf)

**Figure 6**

A sample of the metadata and security features of the European Digital Certificate - Diploma Supplement.



Source: European Commission

Several EU countries started using the Europass digital certificate infrastructure on a large scale shortly after its launch - e.g. Luxembourg issues formal vocational education and training (VET) certificates, Croatia issues digital higher education diplomas from the end of 2021, and the Erasmus Student Network also uses non-formal learning certificates. The European University of the Seas<sup>110</sup> is also a promoter of digital certificates, with a long-term “vision to develop, promote and disseminate the Europass framework of digitally signed documents as a key digital tool for higher education”.

A pilot project in collaboration with the European Quality Assurance Register (EQAR) on the use of accreditation data in higher education is currently (2022) underway. The Diploma Supplement has been created as a digital certificate and the digitisation of the Europass Mobility Certificate and the Certificate Supplement as well as the digital recognition of qualifications for mobility within the EU are in preparation. The code of the European Digital Certificates will be available to different organisations as free software and integrated into their infrastructure.

The new European Learning Model will enable the cross-border exchange of information in a number of areas, such as:

- training opportunities and qualifications, with a description of qualification standards,
- information on the certification or accreditation of educational institutions,
- learning outcomes that form the basis for diplomas, professional certificates, qualifications, examination results or non-formal learning outcomes
- school attendance certificates and employer references, ;
- issuing student ID cards, professional association membership cards, teacher ID cards and other education-related identification documents;
- recognition of diplomas, evidence of study abroad and other documents.

Compared to the existing digital certificates, the learning model plans to be further extended to “all education and employment stakeholders in Europe.”<sup>111</sup> Better data linkage guarantees, for example, the alignment of the wording of learning outcomes in the description of the training programme and the relevant qualification, which “will allow the creation of knowledge graphs to explain the relationships

110 <https://sea-eu.org/>

111 <https://europa.eu/europass/en/news/upcoming-launch-european-learning-model-v3>

between the data, which will be extremely useful in improving and strengthening AI models. These can be used to enhance skills assessment tools, educational pathway suggestions, job recommendations and other types of automated guidance systems.” A common standard (i.e. a data schema) for issuing digital credentials and exchanging data on learning opportunities and qualifications supports and facilitates European mobility, the management of education policies at different levels and the possibilities for collecting and processing information on skills in the context of ensuring workforce sufficiency for the European labour market.

### **3.5 Recommendations for the implementation of micro-certificates, digital badges and digital certificates in the Slovak Republic**

#### **Definitions**

- We propose to use the term ‘micro-certificate’ as a generic term referring to a credential obtained by completing a short course or a module of a longer course, or a credential that demonstrates the acquisition of learning outcomes by learning in other ways, including, for example, through work.
- ‘Micro-qualification’ is then the qualification of the fourth sub-framework of the SKKR and evidenced by a micro-certificate.
- We recommend that the definition of micro-certificate in the draft law on LLL is aligned with the definition proposed by the European Commission, for example as set out in Annex 1.
- In the draft law on LLL, we recommend to support the equivalence of digital badges, digital certificates and traditional paper documents, provided that they contain all relevant information protected from forgery and misuse, e.g. by using a QR code, blockchain technology or a specialised platform.

#### **Purpose and benefit**

- Micro-certificates/micro-qualifications, whether acquired in secondary education, higher education or through non-formal and informal learning, can contribute to making the qualifications system more flexible and to fostering interest in lifelong learning.
- Certificates accepted by law as micro-certificates or even micro-qualifications can be both attractive on the European labour market and valued in Slovakia - both as elements helping to improve education and as a response to labour market needs.
- Micro-certificates/micro-qualifications are already strongly present in further vocational and higher education, in many and not only in English-speaking countries. It is only a matter of time while Slovak learners and educators will encounter this phenomenon and when it will be necessary to respond to it with legal adjustments.
- Micro-certificates/micro-qualifications can boost adult learning provision.
- Micro-certificates/micro-qualifications can contribute to innovation in secondary and tertiary education by absorbing foreign impetus or responding to the findings of graduate tracking.
  - Already, the most valued learning mobility activities are the opportunities for pupils to become familiar with equipment, technologies and working practices that are not available in the sending organisation’s environment. In the future, micro-certificates/micro-qualifications could also be the result of a mobility placement or the completion of a module of an innovative school curriculum or a university programme induced by a foreign experience.
  - Systematic support for graduate tracking, school surveys (the third pillar of a comprehensive graduate tracking system) as well as employee surveys, for which conditions will hopefully be created in the future by the newly established Alliance of Sector Councils and other projects and initiatives, may also contribute to the creation of micro-certificates. Information about the placement of graduates in the labour market graduates and the anticipation of future employers’ needs can lead to the identification of skills that are not or insufficiently covered by the current secondary school curriculum or university programme.
- Micro-certificates/micro-qualifications can help in the education of children with special educational needs, for example in the professional training of teaching and professional staff, but also in the provision of education for learners with special educational needs.
- Micro-certificates can serve to increase the quality, flexibility and scope of education for specific professions (e.g. in Canada, the possibility of introducing micro-credentials in the education of



- health professionals is being discussed).
- The offer of digital badges by learning providers can contribute both to the motivation for life-long learning, which is often more accessible, flexible and transparent, and to its promotion. They help the learner to build status (e.g. a social media profile) or belonging to a community, in addition to the possibility of obtaining, verifying and validating learning outcomes. The information in metadata provides transparent and verifiable evidence of knowledge, skills, attitudes or other achievements.
  - Standardised open badges have a high potential for use in the recognition of non-formal and informal learning as well as European mobility - for example in the recognition of competences acquired during a mobility experience abroad.
  - The forthcoming infrastructure of individual learning accounts offers a suitable opportunity for the systemic introduction of digital certificates based on the European Learning Model and digital badges and their extension to other education sectors in the Slovak Republic.
  - Erasmus+ projects have produced valuable outputs focusing on the use of open badges, for example in quality assurance of mobilities, equipping youth workers or teaching staff with the necessary skills to implement mobilities.

### Implementation

- Discussions by experts at the European level, for example also under the auspices of Cedefop, show the usefulness of a structured approach to the production and delivery of micro-certificates, which can be appropriately set up on the basis of quality assurance requirements. In the case of micro-certificates, which are also evidence of micro-qualifications, the requirements must be strictly set by an external body, either the Slovak Academic Agency (for micro-certificates issued by universities), or the Ministry (for micro-certificates issued by schools and for micro-certificates issued by other educational institutions), with the ambition to include these micro-certificates as micro-qualifications in the register of the National Qualifications Framework (SKKR). For other micro-certificates, we propose only to require a declaration of the method of internal quality assurance.
- In the draft act on LLL, we recommend supporting the equivalence and introduction of digital certificates based on the European Learning Model, the standardisation of digital badges and the creation of a platform to support their issuing and management.
- Badges can be issued in a variety of contexts, for example to recognise generic (transversal) key competences or to recognise specific skills needed for a job, in continuing professional development or in higher education. The use of existing standards (e.g. competence frameworks) improves the standardisation and thus the recognition of the badge and its recognition possibilities.
- Information on the use and value of badges (especially competence-based badges) can be integrated into the information and guidance activities of both the National Europass Centre and Euroguidance.
- The Europass portal now allows citizens to collect all the evidence of their learning in one place, and Open Badge technology allows open badges to be transferred and integrated into the Europass portfolio. Their potential application would be well suited, for example, to the validation of learning outcomes acquired during a mobility experience abroad, which is currently validated by a mobility document<sup>112</sup>.
- Wider use of open badges as a form of validation of learning outcomes requires the development of an ecosystem with sufficient information for all stakeholders (educational institutions, learners, employers, and regulators), the development of methodologies, and the openness of the education system to accept new forms of validation and recognition of learning outcomes. The technological development of platforms and online spaces that allow learners to easily collect, manage and share their certificates and employers to search and analyse the metadata contained in open badges must be a part of building this ecosystem.

## 4. Individual learning accounts

### 4.1 Basic principles of individual learning schemes

The ambitious strategic objective formulated in the Action Plan for the European Pillar of Social Rights (EC, 2021a) on adult participation in learning (see Chapter 2) is accompanied by recommendations, including the introduction of individual support schemes. The Council Decision of October 2020 on guidelines for the employment policies of the Member States specifies the role of individual learning accounts in the Guideline 6: “Education and training systems should equip all learners with key competences, including basic and digital skills as well as transversal competences, in order to lay the foundations for adaptability and resilience throughout the life course. Member States should seek to strengthen provisions on individual training entitlements and ensure their portability when changing jobs, including through individual learning accounts where appropriate. They should enable everyone to anticipate and better adapt to labour market needs, in particular through the continuous acquisition of new skills, upskilling and the provision of integrated guidance and counselling, in order to promote fair opportunities for all in the context of job transitions, to strengthen social outcomes, to address labour market failures, to improve the overall resilience of the economy to shocks and to facilitate the adjustments that will be needed in the aftermath of the crisis caused by the COVID-19 pandemic”<sup>113</sup>. The more specific features of the schemes are further articulated in the Council’s recommendation on Individual Learning Accounts<sup>114</sup>.

Individual support schemes for adult learning are not entirely new and have been implemented in various forms in 21 EU Member States<sup>115</sup>. In Slovakia, there is an equivalent in the form of training accounts, known as REPAS and KOMPAS instruments for jobseekers, but their use so far does not reflect the objective of greater involvement of the wider adult population, not just the unemployed.

The term ‘individual learning accounts’ used in Slovakia, without a clear definition, is in fact a narrowed term encompassing a relatively wide range of individual learning schemes for adults, ranging from savings accounts to education accounts and education vouchers<sup>116</sup>. The choice of a particular instrument and its parameters in the countries that have adopted them has depended not only on specific national objectives but also on their existing education system, including the qualifications system, the financial constraints of national or local budgets, identified labour market needs, etc. It is also the case that implementing countries go through different phases in which they modify the parameters of the schemes<sup>117</sup>. Thus, for the purpose of formulating recommendations for Slovakia, there is no successfully tested scheme that would be fully transferable to the Slovak context. For this reason, in this chapter we focus more on the clarification of the basic principles, giving examples of how these principles have been translated into practice in the countries under study. The recommendations for Slovakia will be, as in other countries, a compromise between the ambition of the predefined goals, the existing institutional constraints and the possibility of using public resources in Slovakia.

The basic characteristic of individual schemes is the full or partial financial support of users of defined learning activities in order to increase adult participation in learning<sup>118</sup>. Direct financial support lowers the financial barrier, strengthens the autonomy of individuals in making decisions about learning activities, increases motivation for self-selection and, last but not least, reduces dependence on the historical - and still dominant - model of employer provision of learning. The average share of learning activities provided by employers in the EU was 34% in the last measurement in 2016, in Slovakia it reached 49%<sup>119</sup>.

Although the existing barriers to adult learning are diverse, the financial barrier is a non-negligible

113 <https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:32020D1512&from=EN>

114 <https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:52021DC0773&from=EN>

115 <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52021SC0369>

116 The differences are briefly explained, for example, in OECD (2019a). Individual education vouchers are the most commonly implemented instrument, with the main difference between vouchers and accounts being the absence of the possibility of fund accumulation in the case of vouchers.

117 Continuous monitoring and evaluation is one of the recognised essential features of successful adult learning reforms (OECD, 2020).

118 We use the broader term learning activities to include any kind or form of education, or more specifically learning. Relevant literature may also include terms such as ‘training programmes’ or just ‘training’. A particular scheme specifies the types of training according to its objectives. If the objectives are vocational education and training oriented, schemes tend to be referred to as training schemes, such as the move from ‘learning accounts’ to ‘training accounts’ in Scotland (ILA and ITA).

119 Adult Education Survey 2016, Eurostat, [trng\_aes\_170].

barrier for many potential participants in adult learning<sup>120</sup>. The cost of education was the second most important reason for non-participation cited in the 2016 survey (EU average 32%, Slovakia 33%). Moreover, available data not only in the domestic but also abroad show that participation in learning activities increases with the level of education, which correlates with income. However, it should also be noted that the low-educated have low participation rates not only due to financial barriers but also due to low levels of basic skills, which are linked to high information barriers. This means that those who need it the most are the least likely to participate in adult education.

A less mentioned sub-objective is to strengthen the market mechanism by stimulating demand, which should contribute to improving the quality of providers and their offer of learning activities, including flexible forms of provision. In practice, this would mean that more competition would lead to the natural disappearance of redundant and unattractive educational activities or the disappearance of low-quality providers. However, it is important to emphasise that to achieve this goal, some organised form of information sharing is necessary, both about the benefits of individual training activities (usefulness on the labour market for participants) and about the quality of providers and training activities among potential participants. The aim is not to create a completely unregulated environment, state control over the entry of providers into the scheme and ongoing monitoring of outcomes are necessary elements of implementation, including addressing the information asymmetries mentioned above.<sup>121</sup>.

When introducing voucher schemes that support the demand side of markets (OECD, 2021b), dead-weight loss is considered to be one of the main implementation risks. In the case of training vouchers, this is mainly the substitution of private funding of an educational activity by public funding in the event that the activity would have taken place without the existence of the scheme (Messer, Wolter, 2009). Specifically, scheme participants would have used the public contribution for the learning activities they would have undertaken even in the absence of the scheme with self-funding (or employer funding). In the extreme case, this would mean that there would be no increase in the total amount of training at all, but only a change in the source of funding, with unchanged participation in training (or a change in activities to those supported by the scheme). Reducing this type of implementation risk is achievable by narrowing eligibility for participation, i.e. by strictly targeting groups that have low participation in training. Thus, targeting the scheme to specific groups while at the same time achieving motivation of the wider adult population to participate in training is an implementation challenge.

While the main objective of the schemes is to contribute to the long-term employability of the adult population by maintaining and deepening skills throughout working life, in a dynamic labour market the flexibility to acquire new skills for emerging activities, occupations or sectors in the context of the digital and green transition is equally important. This is an important reason for focusing education on transferable skills. In other words, these are skills that are not necessarily tied to the needs of current employers and support building resilience for future labour market needs that are poorly identifiable today. Of course, it can be argued that employers have an informational advantage in assessing the effectiveness of investing in particular skills. However, it is still the case that private actors generally do not take into account the externalities associated with their investments when optimizing, which in the context of employee training would imply, on the one hand, a sub-optimal level of investment or a shift to investments with a higher share of private utility. The argument of lower interconnectivity of training in a productive age to a particular employer is a compatibility of schemes with new trends in the form of work - a growing shift away from standard full-time employment towards other forms and lengths of employment such as part-time, flex-jobs and 'platform' work (e.g. Uber). Last but not least, the share of training provided by employers is largely concentrated in large enterprises, with SMEs, micro-enterprises and the self-employed showing a significantly lower share of participation in adult learning (EC, 2018c). Depending on the size distribution of firms in the economy, this may mean that a significant proportion of those in employment are excluded from learning in practical terms once they enter the

120 Adult Education Survey 2016. The very next barrier was family reasons. The main barrier was considered by respondents to be the timetable (schedule), freely translatable as time mismatch (EU average 41%, Slovakia 49%, Eurostat [trng\_aes\_176]).

121 Not all European countries follow the path of demand support. Countries with a high participation of adults in education (Sweden, Finland, Denmark) stay with the emphasis of support for providers and finance publicly the offer of educational activities, which are then free of charge for the population. We believe that the main reason for this can be seen as the fact that their education system and adult learning 'culture', already leading to high adult participation in learning, does not require further innovative tools to promote motivation. Details regarding the characteristics of these systems and a discussion regarding the reasons why education accounts are not considered in these countries is beyond the scope of this chapter.

labour market without additional support.

In setting the parameters of an individual adult learning support scheme and in its implementation, it should always be borne in mind that “increased participation of adults in learning is a necessary but not sufficient condition for a functional and future-oriented adult learning system” (OECD, 2020). After all, increasing adult participation in education is not in itself difficult to achieve through legislative changes requiring stricter regulation of compulsory education (in-company training, certificates for regulated professions, length of validity, etc.). In other words, the emphasis on the quality of education and its relevance is no less important when designing the instrument.

#### **Box 9: The main principles in a nutshell**

- Integration of provider support with direct participants support (from supply to demand).
- Emphasis on individual autonomy in the choice of learning activities in the area of transferable skills defined by the state.
- Adjustment of scheme parameters (eligibility, funding) to activate the groups with traditionally low participation in adult learning and reduce the risk of deadweight loss.

#### **Examples of implementation of the basic principles in other countries**

The main differences between countries in the implementation of individual training schemes are mainly in the definition of eligibility for participation in the scheme, the amount of the financial contribution (or source of funding) and the definition of the content of the training activities. In this section, we draw on an analysis of several implemented schemes presented in the publication “ILA: Panacea or Pandora’s Box” (OECD, 2019a)<sup>122</sup>.

##### **4.0.1 Eligibility for participation of individuals**

Eligibility for participation varies greatly, but in general these are schemes for adults of a certain age. The specific specification of the beneficiaries of the scheme depends on the amount of public resources allocated and the purpose of the scheme (who we primarily want to activate). As the underlying motivation of these schemes is to increase participation in adult learning, the ideal scheme is a nationwide scheme for all adults after they have completed initial learning from a certain age or after they have entered the labour market. Nation-wide schemes have the advantage of low administrative complexity - there is no need to prove eligibility, such as educational attainment or level of income. However, such schemes are costly and thus, for the same level of resources, have a lower capacity to target specific groups with low participation in adult learning. For this reason, no country has a nation-wide scheme defined in this way, except Singapore, where all individuals on reaching the age of 25 receive a one-off credit of 500 Singapore dollars, which has no time limit on its use and unused credit expires only on the death of the individual.<sup>123</sup> In general, schemes that have a broader goal of promoting lifelong learning may include post-working age groups and thus include activities that may not necessarily be linked to labour market needs. However, it is true that most countries focus on enhancing employability at working age, which of course does not mean limiting the participation of older age cohorts when it comes to skills for the labour market<sup>124</sup>.

As adult education is demonstrably more likely to be attended by the highly educated, it is possible to narrow the scheme down to a particular level or type of education. For example, the Austrian scheme was designed for people with vocational training also to compensate for their shorter initial publicly funded training compared to those with higher education. As education correlates with income, it is possible to limit participation in the scheme by income (Canton of Geneva, Scotland) or by a combination of income and education (Austria later introduced an option for participation of low-income, university-educated people). Thus, limiting participation by excluding highly educated and/or above-average income participants reduces the risk of substitution of public for private funding.

<sup>122</sup> The main countries or regions surveyed included: France, Upper Austria, Scotland, Michigan and Washington, Tuscany, Singapore. Demand-driven schemes are evolving and the information provided relates to the time period in which the survey was conducted.

<sup>123</sup> This automatic one-off contribution is sometimes supplemented by an additional credit, presumably from the dependency of the state budget (“periodic top-ups”). There is also, from 2020, a parallel scheme for people aged 40-60 with the same allowance, which aims to enable a career change ([Skills Future Credit](#)).

<sup>124</sup> The target itself, formulated as an indicator value for adult participation in education in the Action Plan for the implementation of the EPSR, does not limit age. However, by default the indicator is measured for the 25-64 age group. The Slovak target for the implementation of the EPSR Action Plan indicates this age category.

Some schemes exclude the economically inactive population<sup>125</sup>. The reason for this restriction may be the existence of other tools to activate them. Access of the self-employed to existing schemes abroad is increasing - in principle there is no reason to believe that their career paths are less dynamic and less in need of updating their skills, thus discriminating against them in their access to public resources for adult learning.

In addition to definitions related to economic activity, education and income, the scheme can target a specific demographic group, such as mothers returning to the labour market (Austria), parents on parental leave or caring for a family member (Germany), employees in non-standard employment relationships, mothers returning to the labour market, immigrants, soldiers, transgender people (Tuscany). A combination of several dimensions is also possible, e.g. the above-mentioned Austria allows participation for university graduates with a certain income threshold. One possibility for more precise targeting is to modify the level of contribution for certain groups, where for example low educated people have higher financial support (Austria, France, Flanders), as well as people over 50 or migrants studying a language (Germany).

#### **Box 10: Eligibility for participation in a nutshell**

- Adult education schemes are designed for people beyond initial education, mostly of working age.
- The specific focus on the target group depends on the specific objective: increasing overall participation, increasing participation in the training for labour market needs, integration of immigrants, return of parents after childcare, older age cohorts, etc.
- The narrowing eligibility for participation may be justified by the existence of other schemes targeting subgroups of the adult population and the risk of deadweight loss.

#### **4.2.2 Funding**

Existing schemes largely have some form of co-funding. This is a built-in mandatory co-funding for scheme participants. In practice, of course, co-financing is possible if the cost of the selected training activity exceeds the amount of the public contribution. However, there are exceptions. Flanders, for example, prohibits co-financing by employers while not allowing participation in the activity during working hours. In order to avoid funding compulsory work-based learning, some schemes explicitly prohibit these types of learning (Germany, UK as a precursor to the Scottish scheme). France, on the other hand, explicitly encourages co-financing by employers or sectoral training funds and training can also take place during working hours.

Germany, Austria and Belgium (Flanders) require individual co-financing of 40-70% of the total cost of the training activity, while in Austria, for example, the co-financing is reduced for some under-represented groups. Different types of education may have differentiated levels of state contribution. In Belgium, for example, the standard state contribution is 125 EUR, but double amount for people in lower secondary education, education recognised as 'educational leave' and IT education. The amount of the contribution does not have to be fixed. Canada uses the principle of sharing, e.g. 2:1 for participation fees or 5:1 for indirect support, e.g. childcare, books, computers, with a maximum contribution set at 1 500 Canadian dollars. Germany has a similar combination of contributions: 50 per cent co-financing up to 500 EUR. In the USA – the Ste of Washington and Michigan, the contribution is up to 10 000 USD. Employer co-financing is rather exceptional (in Portugal, employers co-finance up to 10 %). An exception is the French scheme, which is financed by medium and large enterprises through a training tax levied by sectoral training councils and financing training taking place in enterprises - employers are thus indirectly involved in the financing.

Differentiation of the amount of the financial contribution may also be according to the demographic characteristics of individuals. For example, a higher funding for foreign nationals, for participants aged 50 and over, or for persons with disabilities. Last but not least, the level of administrative burden for very detailed differentiation (e.g. proving income or childcare costs during education) needs to be taken into account. Too high administrative complexity is not only an additional burden on the state budget,

125 Scotland from 2017, previously a full adult scheme up to a pre-determined public budget.

but also increases the barriers to participation in the schemes.

#### **Box 11: Amount of public contribution in a nutshell**

- In general, higher public financial support is associated with a higher level of co-financing by the participant.
- Differentiating the level of contribution according to the demographics of participants leads to administrative complexity and can create barriers for groups with low participation in adult learning.
- Co-financing of activities is also possible from private sources.

### **4.2.3 Types of activities covered**

#### **Formal and non-formal education**

In general, due to the emphasis on transferable skills and the size of the financial contribution, mainly short duration non-formal learning activities are implemented. Only a small proportion of participants choose preparatory programmes for examinations in order to attain a degree or qualification level that is registered by the state (i.e. formal education)<sup>126</sup>. In Scotland in 2018, only 5% of participants in courses leading to a degree or qualification did so; in Michigan, roughly a fifth of participants. In Austria, a quarter of participants were preparing for examinations in the formal education system, specifically in apprenticeships programmes and courses leading to a school-leaving certificate to access higher education. In France in 2016, this was a third of participants, with a higher proportion among the unemployed. This was also due to the fact that the unemployed were entitled to higher financial support and could afford longer learning activities that are typical in formal education (e.g. to obtain qualifications for certain types of occupations), which in turn translated into almost quadrupling of the average number of hours spent in education..

In Austria and Michigan, participants mainly took part in vocational training programmes. Slightly more than half of the applications in the Austrian scheme were for intermediate level non-formal education, i.e. courses not leading to qualifications recognised as formal education. These were mainly courses to improve competences in health professions, technology professions and the business sector. In Michigan, sector-specific certificates dominated, particularly nursing and truck driving.

#### **Content focus of educational activities**

Language courses are very popular in France and the Canton of Geneva. In France, language courses accounted for 40% of approved accounts and almost two thirds of courses involved language learning in the Canton of Geneva. IT courses are the second most popular type of training in France, similarly with the Scottish scheme. Basic IT skills are very commonly used by trainees in the 40+ age group in Singapore, with even greater interest in the 60+ group.

Training to obtain various occupational certificates (in Slovakia known as certificates of professional competence), e.g. in sectors such as construction, transport and logistics, security and licensed sales, are the most commonly used in the Scottish scheme. In France, unemployed people often use the scheme to obtain a forklift operator certificate. In France, the scheme is also often used to complete a compulsory programme for those wishing to become self-employed in the trades.

The category of transferable skills also includes basic skills. They are not known to be excluded by the schemes mentioned. In France, for example, the unemployed participate in the Cléa programme, which was set up in 2016 to assess basic skills in seven areas for people without formal education. If a participant in the Cléa programme lacks skills in one of the assessed areas, he or she can receive training in that area through short and practically oriented training programmes and obtain a certificate of participation.

The amount of funding provided affects not only the specific content, but also the length of the learning activity. For this reason, for example, effective communication courses or private chauffeur licensing

<sup>126</sup> In general, formal education includes any organised learning that leads not only to a degree but also to a qualification. In Slovakia, current legislation considers formal education to be only that education which leads to a level of education classified in ISCED. These differences consequently also affect the measurement of the type of activities in surveys.

courses that require less than 20 hours are popular in Singapore. Higher financial support in Austria and France correlates with longer and more specialised courses. In Austria, support can be combined with study leave, allowing participation in longer training activities.

#### **Box 12: Definition of learning activities in a nutshell**

- The educational activities implemented depend on the amount of the public contribution and the content of the training.
- Existing foreign schemes are dominated by non-formal education and training for various types of vocational certification.
- Basic skills, including language trainings and competences (such as communication) are also included in the content.

### **4.3 Accompanying support for successful implementation**

Experience from other countries suggests that accompanying support activities that contribute to the success of the scheme include guidance, quality assurance of providers and, for some schemes, the existence of study leave.

Counselling associated with individual learning schemes can be divided into two categories. On one hand, it involves addressing information and other barriers associated with the scheme itself (e.g. applying for the scheme). On the other hand, it can include accompanying career guidance to help with the effective selection of a training activity, taking into account the specific situation of the candidate, e.g. existing skills, possible labour market opportunities, personal circumstances, etc. Advice on the scheme itself and its promotion is relatively easy to deal with through channels that are also accessible to disadvantaged potential participants, accompanying client services (contact points, hotlines (Singapore)) especially for potential participants with low digital skills to navigate the web portal, etc. Existing schemes are gradually moving away from paper-based supporting documentation (e.g. application form) with exceptions for people with limited access to digital tools (Scotland, France).

Career guidance in the sense of expert assistance in formulating and planning a career path or career change is not usually a part of individual schemes. France has a system of career guidance, but this is not linked to the scheme, i.e. guidance services are available outside the scheme and are not a condition for participation in the scheme. Of the countries surveyed, only Tuscany required a consent of a career counsellor (sometimes a psychologist) for participation. There are schemes (Flanders, France) allowing the use of the skills assessment allowance. An example of embedding counselling in a scheme is the US scheme (US ITA), divided into three modules: i) structured selection, where participants have to participate in counselling and the counsellor can prevent the participant's choice, ii) guided selection, where counselling is compulsory but less intensive and the counsellor cannot prevent the choice, and iii) maximum selection, where counselling is voluntary and the counsellor cannot refuse the chosen activity. In Scotland, jobcentres managed by the Department of Labour also provide information about the scheme and career advisers at Skills Development Scotland (the national skills management agency) are used for career guidance.

Countries are trying to make the individual choice of educational activity effective also in other ways. Most schemes limit educational (or training) programmes by creating lists of eligible learning activities. In addition to the fact that this measure regulates the quality of providers, it also allows defining the relevance of training for the labour market, which partly addresses the information asymmetry for potential participants. Such an indirect influencing of participants' choice is present in the Scottish and Portuguese schemes, where training programmes have to be aligned with labour market priorities identified by the government or job centres. At the same time, restrictions should not be overly complicated to avoid administrative difficulties. For this reason, France changed the eligibility of providers in 2019 and the only requirement now is that the training programme awards a certificate registered with the National Certification System, including transversal skills used in the performance of occupations (RNCP).

Eligibility of providers is closely related to the content definition. Here it is possible to use existing registers or other institutes in the country that already deal with quality assurance, such as in France mentioned above. Canada has also simplified the eligibility of providers to those registered with the national

student loan programme. Determining the eligibility of providers is appropriate not only for reasons of regulating the relevance of the content of the programmes, but also for verifying the quality of provision (expertise, pedagogical competence, material and technical equipment, etc.). The experience with the UK accounts points to the risk of possible fraudulent behaviour (Lee, 2010)<sup>127</sup>, which led to the rapid closure of the scheme in 2001.

For more complex schemes focusing on more time-consuming reskilling (also with a higher contribution from the state), it is recommended to address the issue of possible paid study leave and employer compensation in the absence of the employee. In Austria, it is possible to combine funding from a training scheme with a study leave scheme (it exists as a separate form of support). Again, it is possible to differentiate the amount of the contribution, e.g. in Flanders there is a higher support for training taking place during paid study leave, while compensated study leave is only possible in a limited number of educational (training) programmes.

#### **Box 13: Accompanying activities in a nutshell**

- Effective promotion of the scheme with accompanying support services, e.g. assistance in navigating the scheme for potential participants („hot line“).
- An assistance mechanism for assessing one's own abilities in choosing an educational activity and its subsequent usefulness for the individual, for example in the form of career counselling.
- Checking the quality of providers also by using existing quality assurance systems.
- Strengthening the institute of study leave for workers.

#### **4.4 Recommendations for implementation in Slovakia**

The proposed recommendations for the introduction of an individual support scheme for adult education in Slovakia combine basic principles, experience from other countries, the financial possibilities of public resources and the existing institutional infrastructure, including the national experience with training accounts (REPAS/KOMPAS). We propose to use the term individual training accounts (ITAs), although a more accurate name would be individual training vouchers. This is because the term is already established and we do not consider the change in terminology to be crucial.

We recommend that the main objective of the ILAs should be to achieve a higher level of adult participation in education. This objective is based on the aforementioned target value of the monitored indicator for adult education approved by the Government in the context of the implementation of the Action Plan for the implementation of the EPSR.

The main objective is feasible if the scheme is simple and understandable. Implementation in Slovakia is likely to go through the phases defined by changing parameters, as has been done in other countries. We therefore recommend that the initial introduction of the scheme should be primarily oriented towards popularising the tool to the general public and raising awareness of the importance of lifelong learning. Limiting eligibility, and the resulting need to demonstrate it, reduces the attractiveness of the scheme and undermines the main objective. We recommend defining the eligible age group at all adults, excluding those in formal education. It means that the scheme would not be restricted to the working age population, in order to make the scheme more accessible to older age cohorts with a need to top up basic digital skills (see discussion below).

More specifically, we recommend the introduction of ILAs in the form of a cumulative maximum contribution of 200 EUR for those interested in participating in the scheme<sup>128</sup>. This means that the contribution from the State is not claimable and that participants sign up until the allocated budget for a given cycle is spent. In the event of a lower priced activity, it should be possible to re-apply for the scheme if there are still funds available. The reason for this is to avoid a possible convergence of the current lower prices on the market to a uniform level of 200 EUR.

127 The article cited above offers a more comprehensive picture of the pitfalls of introducing new tools in public policy through the experience of the UK education accounts. A more concise overview of fraudulent behaviour is offered, for example, by the UK's National Audit Office.

128 The proposed amount of the contribution was already mentioned in the document Learning Slovakia (2017). The amount is similar to the contribution in Scotland. The amount can of course be adjusted depending on the preferred learning activities.



Based on the available international data, we estimate participation of approximately 2% of the population. The proposed scheme is closest to the Scottish scheme, which had a participation rate of 0.8% and was income restricted. If the Slovak scheme does not have this limitation, we estimate an optimistic participation rate of 2% (recorded participation at the level of Austria and France)<sup>129</sup>. Of course, the time lag due to the start-up of the scheme has to be taken into account, but experience from other countries shows that the scheme is popular at the beginning and the interest declines over time (it may increase after some modification of the scheme, e.g. by increasing the contribution for some groups, etc.). In such a scenario, the cost of the scheme in the first cycle would be roughly €10 million, i.e. for around 50,000 participants. The quantification of the overheads would depend on the level of accompanying services, while the fixed costs of running the scheme should also be taken into account.

The first phase or cycle of the roll-out of the ILA will require a detailed data collection on user characteristics and experiences, in particular to assess the amount of potential deadweight loss (substitution of private funding), the level of activation of disadvantaged groups and possible unwanted behaviour (either fraudulent or as a result of poorly specified parameters). The logic in implementation should be as follows: the first cycle will be unrestricted in the form of a pilot and only after the data analysis of the first cycle restrictions on participation or differentiation of contribution levels, etc., will be set. This approach is more realistic than introducing a scheme with restrictions (based on estimates) and then trying to communicate more relaxed conditions to the public in case of low participation.

Thus, it is quite likely that eligibility for participation will be limited or modified in the subsequent cycle according to the level of income due to the expected strong substitution effect. An alternative is to divide the allocation by a proportion already in the first cycle, for example, half for people above the median income and half for people below the median income, while still acknowledging that proving income can be a significant barrier. This barrier could be reduced by including an affidavit of income for the most recent period (e.g. one year or an average over the last two years) as part of the application to the scheme, followed by a random or administrative data check.

Slovakia is also lagging behind in basic digital skills as an additional indicator monitored in the Action Plan for the implementation of the EPSR. The gap in adult participation in education compared to the target is more moderate and the gap in basic digital skills is significantly higher (see Chapter 2). For this reason, the tools to promote adult participation in education could be significantly targeted at building digital skills. However, the EPSR indicator tracks the share of the population aged 16-74 and measures basic digital skills. The proposed ILA scheme has a broader focus in terms of promoting employability<sup>130</sup>, therefore the focus on digital skills should not dominate the other attributes of the scheme. The Recovery and Resilience Plan includes more direct and potentially more effective measures for increasing basic digital skills in disadvantaged populations<sup>131</sup>. However, the ILA scheme should enable participation in basic digital skills trainings and then its effectiveness for this purpose could be evaluated.

For the design of the ILA scheme itself, we can draw on the existing experience with REPAS/KOMPAS instruments<sup>132</sup>. This is a long-standing scheme which is in principle an individual training voucher for jobseekers under the Employment Services Act, funded by the EU funds. A jobseeker chooses a training course from the existing offer of vocational and competence courses, which is then approved by the Labour Office and after signing the contract, the course is fully financed from the public funds (in the REPAS/KOMPAS+ version also travel and subsistence costs for full-time courses)<sup>133</sup>. An im-

129 Figure 1.3 in OECD (2019a).

130 Support for employability can also cover accompanying activities that are not necessarily of an educational nature. These include the aforementioned counselling or the validation of skills acquired in non-formal or informal learning.

131 This is reform No. 7 in the Recovery and Resilience Plan in the Digital Slovakia Component “Strategic approach to education in the field of digital skills development in cooperation with representatives of key stakeholders” with the accompanying investment No. 9 “Improvement of digital skills of seniors (including disadvantaged groups) and distribution of senior tablets” with an allocated amount of 69 million euros.

132 There is no space in this document to evaluate the effectiveness of retraining schemes. Their relevance for the ILA scheme lies in implementation details, such as the obligations of the participants, contractual conditions, timing of actions, etc. Within the framework of the Competence Act, the educational accounts scheme falls under the competence of the Ministry of Education, Science, Research and Sport of the Slovak Republic.

133 The scheme thus defined is very similar to the Scottish scheme of individual training accounts, but the difference is in the amount of the allowance (Scotland has a fixed allowance of £200, in Slovakia there are maximum price limits for groups of courses, which usually exceed the value of €200).

portant element of the scheme is the fact that, although the course is only fully funded after successful completion, the commitment for funding is assumed by the State when the contract is signed with the course participant. In other words, the participant is not required to pay for the course with a later reimbursement. The labour office signs a contract with the jobseeker, which the jobseeker presents to the course provider. In case of non-completion of the course for reasons that are not considered justified, the participant is obliged to reimburse the Job Centre. We mention this because in the case of Austria, where payment from the participant was required upfront with subsequent reimbursement after the completion of the learning activity, this mechanism was recognized as a significant barrier for disadvantaged groups (Lassnigg and Baumegger, 2019).

The content of courses and regulation of providers could follow the REPAS/KOMPAS schemes. One of the exceptions in terms of course content is the proposed possibility to use contribution for basic skills courses (the existing offer in the REPAS/KOMPAS schemes does not include these courses and the existing courses cannot be taken without basic education). Even if the educational content defined in this way makes it possible to finance educational activities for hard-to-reach groups of the low-educated population, a significant shift in the solution of this complex problem by educational accounts cannot be foreseen. The fundamental problem is the non-claimability of the contribution and thus a limited guarantee of funding for a specific target groups, e.g. in a marginalised community. In other words, the proposed scheme cannot adequately address the inclusion of hard-to-reach groups. However, the inclusion of basic skills in the content of the training activities does not prevent its possible use for the low-educated. A better understanding of the effectiveness of this tool for interventions in this area will be possible after the initial data collection.

In view of the gradual implementation of validation of prior learning in Slovakia we recommend to include the activities related to this process, in particular participation in examinations or compilation of a portfolio with a qualified career counsellor among the activities funded through ILA.

Similarly, we recommend to include the migrants without the Slovak citizenship but with a residence permit or a granted asylum in the ILA scheme. We consider this important not only in the context of the European mobility, but also in the context of integration of foreigners. Language courses or courses to attain a level of education for migrants are part of a number of foreign ILA schemes as a form of support for integration, although we believe that the integration of foreigners should be addressed by separate schemes of more direct support. In any case, it is necessary to make it possible for migrants with a residence permit to participate in the scheme and to evaluate the effectiveness of the instrument in this area after the first cycle.

To ensure successful implementation, it is essential to address the availability of information on the activities offered. Information should be concentrated in one place, e.g. a web portal. This includes information on the training opportunities offered, the applicability of newly acquired skills, opportunities for career changes, up-skilling in digital skills, etc. It is not advisable to leave the search for this kind of information to individual participants, especially if the accompanying objective is to activate groups with low participation, also conditioned by a significant information asymmetry.

For this reason, it is crucial to build a single information portal on two levels: 1) basic information on available courses, including their content, price, format and geographical location, and 2) a platform providing information that represents some form of general career guidance (e.g. ideally, these digital tools should be complemented by the possibility of individual guidance, but it is not expected that a comprehensive guidance infrastructure will be in place prior to the introduction of the scheme (e.g. as proposed in the LLP Strategy 2021-2030). The alternative is to allow the use of ILA for career guidance within the existing structures. For example, job centres currently provide guidance for jobseekers. However, given the existing capacity and scope for counselling in jobcentres, we suggest that participants in the scheme could refer to private career counsellors, e.g. those registered with the existing associations of career counsellors<sup>134</sup>.

We recommend creating a register of providers who, as part of their registration, create a list of specific training activities for the information portal according to a uniform format. Verification of the eligibility of training providers can be based on an existing verification system, as in the case of REPAS/KOMPAS schemes or the accreditation of adult further education programmes. As part of the use of existing institutional elements, it is recommended to update the existing portal for further adult education ([isdv](#).

134 E.g. Association of Lecturers and Career Counsellors (ALKP), [www.alkp.sk](http://www.alkp.sk), Association for Career Counselling and Development (ACCD), [www.rozvojkariery.sk](http://www.rozvojkariery.sk).

[iedu.sk](http://iedu.sk)).

In conclusion, we recommend that the participation of the analytical unit should be taken into account in the development of the implementation plan. The involvement of the analytical unit of the MESRS or another organisational unit in the development of the implementation plan is justified in the formulation of the requirements for data collection prior to the launch of the scheme so that they are usable for the purposes of ongoing monitoring and evaluation of the effectiveness of the pilot scheme, e.g. in the activation of the demographic groups mentioned above. It is also worth considering the possible linking of data on the scheme participants with administrative data.

**Box 14: Specific features of ILAs in the SR in a nutshell**

- Residents aged 16+ (excluding those in formal education for attaining a level of education) and migrants with a residence permit.
- A financial contribution of up to 200 EUR for one or more activities within the scheme.
- Duration of the scheme until the allocated budget is spent.
- Consider quota allocation of funding.
- The financial contribution can be used for the courses registered in the register of providers and for career guidance listed in the relevant part of the information web portal (ideally also with a mobile app), or for other activities such as validation of prior learning.

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## Annex 1 – Proposal of the definition of micro-certificate for the LLL Act

### Micro-certificate

1. Micro-certificate is a record of learning outcomes that an individual has acquired through a small amount of learning in a formal, non-formal or informal setting that leads to the acquisition of knowledge, skills and competences relevant to the individual's social, personal and cultural needs or to the current needs of the labour market.
2. Micro-certificates are issued by an educational institution or other authorised institution and owned by the individual learner, are accessible and transferable. It can be used alone or in combination with other certificates.
3. A micro-certificate which meets the conditions set out in the qualification standard shall confer a professional qualification. The inclusion of the micro-certificate in the Register of Qualifications and the determination of the appropriate level of the SKKR shall be carried out by the Ministry.
4. An educational programme of at least 10 hours leading to the acquisition of a micro-certificate which confers a professional qualification shall be assessed by a secondary school providing education in the relevant field of education included in the network or by a higher education institution which has an accredited corresponding study programme.
5. The Ministry of Education shall maintain a list of educational institutions providing education leading to a micro-certificate which confers to a professional qualification (hereinafter referred to as 'the list'), which it shall publish on its website.
6. An educational institution may apply for inclusion in the list. The list shall include in particular:
  - a) the name and address of the educational institution,
  - b) an indication of the relevant secondary school or college which has given its consent to the provision of education leading to the micro-certificate; this shall not apply if the educational institution is a secondary school or higher education institution,
  - c) the website of the educational institution and the contact details of the educational institution,
  - d) the title and scope of the training programme leading to the micro-certificate,
  - e) the way how the quality standards or other quality assurance are met,
  - f) other criteria specified in a general binding legal provision.
7. The details of micro-certificate, including the compulsory data to be included in the micro-certificate, shall be laid down in a generally binding legal regulation to be issued by the Ministry of Education.